4.7 DPS - Data Processing Subsystem

4.7.1 Introduction

The main components of the Data Processing Subsystem—the science algorithms—will be provided by the science teams and entered into the production system via the Algorithm Integration and Test Tools (AITTL). The Data Processing Subsystem will provide the necessary hardware resources to run the science algorithms, as well as software for queuing, dispatching and managing the execution of these algorithms in a distributed environment of heterogeneous computing platforms. The Data Processing Subsystem also interacts with the Data Server Subsystem to coordinate the staging and de-staging of data in synchronization with processing requirements so as to minimize the delay of a software execution and ensure that deadlock situations are not created.

The Data Processing Subsystem is responsible for the management of the processing resources at a provider site. These responsibilities include the following activities:

a. Manages, queues and executes Data Processing Requests on the processing resources at a provider site. Data Processing Requests are submitted from the Planning Subsystem which derives them from Processing Requests (PR). Data Processing Requests use Product Generation Executives (PGE) to perform the processing. PGEs will result from the integration and test of science algorithms [ref.: ECS White Paper 193-00118] and user specific methods delivered to the subsystem. They will be encapsulated in the ECS environment through the SDP Toolkit. The subsystem also supports process monitoring by the operations staff.

b. Supports the execution of science algorithms through the SDP Toolkit. A set of tools developed to standardize and provide a common interface for each science algorithm to the EOSDIS environment.

   The following documents provide guidance on the roles and responsibilities of the SDP Toolkit to support the execution of science software:

333-CD-001-002SDP	Toolkit Users Guide for the ECS Project, 11/94
193-801-SD4-001 PGS	Toolkit Requirements Specification for the ECS Project, FINAL, 10/93 [AKA GSFC 423-16-02]

c. Supports the preliminary processing of data sets, i.e. L0, ephemeris data, and ancillary Data Products, which are required by the science algorithms, but are not in the proper format for use.

d. Provides the Algorithm Integration and Test environment used to incorporate new science algorithms and user methods into the EOSDIS environment. The Algorithm Integration and Test environment is required when new algorithms/methods are delivered and integrated into the EOSDIS environment. It allows the user to access tools to support the Integration and Test (I&T) process through the Client Subsystem. The algorithm or method will be acquired by the system through an Ingest client which will reflect local site policies on how it accepts software for integration. Once acquired, the algorithm/method and its associated data files (test, calibration, etc.) will be registered in the local site Configuration Management (CM) system as part of the archival by the Data Server Subsystem.

4.7.2 Data Processing Subsystem Summary

4.7.2.1 Subsystem Interfaces

Refer to Section 3 of 305-CD-027-002 for a context diagram and for details of the flows between subsystems. The PRONG CSCI interfaces with the following external actors and SDPS subsystems to fulfil its responsibilities :

1. Planning Subsystem—The Planning Subsystem is responsible for creating a Production Plan to be coordinated with the PRONG CSCI. The Production Plan information is conveyed to the PRONG CSCI through the use of Data Processing Request messages. For each Data Processing Request, Planning provides information which Processing uses to manage the execution of PGEs and the resources that a PGE requires for execution. Each Data Processing Request represents one processing job to be performed by a Data Processing Subsystem computer resource.
2. Data Server Subsystem—To support the creation of ECS Data Products, the PRONG CSCI needs the capability of requesting and receiving data (data staging) from any of the Data Server resources which have the responsibility of maintaining the data.

   Also, the PRONG CSCI needs the capability of transferring data (data de-staging) to any Data Server resource for archiving of a generated Data Product.
3. MSS - Information concerning faults, configuration, accounting, performance, security and operations are provided to MSS. MSS sends lifecycle commands that govern the operation of the system.
4. Operations Interface—To support the management and monitoring of the execution of a PGE and the creation of ECS Data Products, an HMI interface is provided. This interface provides services to support the collection of status for a Data Processing Request, the cancellation, suspension, modification of a Data Processing Request, and monitoring of the health of Data Processing Subsystem hardware resources.
5. SDP Toolkit Interface—To support PGE execution, the PRONG CSCI provides information to the SDP Toolkit on the location of input Data Products and the location of where the generated output Data Products are to be maintained.
6. Interoperability Subsystem—To provide and receive advertisements.
7. Ingest Subsystem—To provide L0 data and ACQUIRE commands responses.

4.7.2.2 CSCI Overview

4.7.2.2.1 PRONG CSCI - Processing

The PRONG CSCI is responsible for the initiating, managing, and monitoring the generation of ECS Data Products. An ECS Data Product is generated through the execution of Product Generation Executives (PGE) which are provided by the instrument teams. The PRONG CSCI supports the execution of a PGE by performing the following activities :

1. Supports operations staff interfaces to monitor the Processing environment.
2. Interfaces with the Data Server to stage data required by a PGE for execution.

3. Allocates hardware resources, i.e., CPU, memory, and disk space, required by the PGE for execution.
4. Interfaces with the Data Server to free storage resources allocated to support the execution of the PGE.
5. Cancels input data staging or deletes staged data if its related DPR is canceled and no other DPR needs the data.
6. Completes input data staging then suspends the PGE job for which a suspend command has been received during the staging period.

A request to produce an ECS Data Product is received from Planning in the form of a Data Processing Request. A Data Processing Request contains the information (i.e., input data identification, output data identification, priority, etc.) that the PRONG CSCI needs to execute the PGE. Also included in the Data Processing Request is the hardware resources required by the Processing CSCI to support the processing job. Generally, a processing job is related to the generation of Data Products, but these jobs may include other types of processing, such as pre-processing of input data, quality assurance processing of generated Data Products, and possibly resource maintenance.

During PGE execution, the PRONG CSCI monitors the execution of the PGE and informs the operations staff of current status. Status includes current processing state (i.e., data staging, execution). Also, monitoring will be needed to make sure that the processing activity is executing properly. Upon completion of the execution of a PGE, the PRONG CSCI informs the Planning subsystem and initiates the transfer of the generated Data Product (if necessary) to the Data Server.

The PRONG CSCI also performs preprocessing. Data Preprocessing can be defined as preliminary processing or application of operations on a data set which do not alter or modify its scientific content. Preprocessing includes changes to the format of a data set by reordering the lower level byte structure, reorganization of a data set (ordering data items within and between physical files), preparing additional metadata based on lower level metadata, etc.

The data that need preprocessing are:

Attitude data contained in the spacecraft ancillary packet within Level Zero (L0) data from the Sensor Data Processing Facility (SDPF) for the Tropical Rainfall Measuring Mission (TRMM).

Orbit/Attitude (O/A) data contained in the spacecraft ancillary packet within L0 data from EOS Data and Operations Systems (EDOS) for EOS-AM.

L0 Data Header received from EDOS for EOS-AM.

Repaired orbit data generated by the Flight Dynamics Facility (FDF) for EOS-AM as a replacement for defective onboard orbit data. For TRMM, the definitive orbit is FDF-generated but comes via SDPF.

The preprocessing functions that will be performed by PRONG CSCI are:

Reformat all FDF ephemeris data sets to Hierarchical Data Format with EOS extensions (HDF-EOS) format.

Prepare additional metadata required by the Science Data Processing (SDP) Toolkit. The Preprocessing functions will derive any additional metadata from existing data and metadata to provide to the SDP Toolkit.

Provide access to EOS-AM metadata, ephemeris, L0 header, and O/A data via the SDP Toolkit.

The scope of extent of Preprocessing will change based on the resolution of some L3 requirements. For example, there are some outstanding issues that need to be resolved with the FDF with regard to repair/refinement of attitude data. The Preprocessing transformations translate data to the most desirable and efficient storage or processing form. The Preprocessing software, if algorithm specific, will be provided by the algorithm team that requests a data transformation.

This section defines the requirements for the following:

- the interface between CSMS and the PRONG CI
- receipt of Data Processing Requests and cancellation of Data Processing Requests from Planning.
- the interfaces between Processing and the Data Server and the activities which are needed to stage and destage data.
- the activities needed to support the execution of a PGE.
- the PRONG CI role in HMI and Operation staff activities.
- obtaining status information about a Data Processing Request and a PGE from the PRONG CI.
- manipulation of Data Processing Requests by operations staff.
- acceptance of TRMM Orbit Data for Preprocessing. Orbit data comes from FDF-generated (definitive) orbit data via SDPF.
- acceptance of EOS-AM Orbit Data for Preprocessing. Orbit data come from three sources: (a) FDF-generated (definitive), (b) contained in the spacecraft ancillary data, and (c) FDF-repaired orbit data.
- acceptance of Repaired Orbit Data. FDF monitors the quality of onboard orbit data. If there is a major anomaly, FDF provides repaired orbit data. Repaired orbit data is definitive orbit data which is FDF-repaired replacement for defective onboard orbit data. There are some outstanding cost and policy issues regarding refinement of orbit data which needs resolution.
- quality checking of Orbit Data. The spikes/dropouts in the onboard orbit data are detected and flagged. Ingest CI is notified if the dropouts are excessive to get repaired orbit data from the FDF.
- acceptance of TRMM and EOS-AM Attitude Data for Preprocessing. Onboard attitude data are part of TRMM and EOS-AM spacecraft ancillary data.
- quality checking of Attitude Data. The spikes/dropouts in the onboard attitude data are detected and flagged.

- access to ephemeris data via the SDP Toolkit. The SDP Toolkit requires an uniform interface for providing access to ephemeris data. The PRONG CI provides some minimum information to the SDP Toolkit in the form of additional metadata and/or compatible data format.
- provision of access in general to L0 data to the SDP Toolkit. The SDP Toolkit requires an uniform interface for providing access to SDPF L0 data. The PRONG CI provides some minimum information to the SDP Toolkit in the form of additional metadata and/or compatible data format.
- acceptance and conversion of Selected Non-Standard EOS Products. Non-standard EOS products are TOMS and Government Furnished Equipment (GFE) data sets.
- extraction of additional metadata for certain Ancillary Data Sets. For FDF-repaired/refined orbit/attitude data and certain external ancillary data, some additional metadata generation will be required in addition to the minimal metadata extraction done by INGST CI.

4.7.2.2.2 SDPTK - SDP Toolkit CSCI

The requirements for the SDP Toolkit CSCI are contained in "PGS Toolkit Requirements Specification for the ECS Project" (193-801-SD4-001).

4.7.2.2.3 AITTL- Algorithm Integration and Test CSCI

The purpose of the Algorithm Integration and Test Tools (AITTL) Computer Software Configuration Item (CSCI) is to facilitate the transition of the science processing algorithms and user methods which have been developed externally within the Science Computing Facility

(SCF) or at a user site into the operational environment of the Distributed Active Archive Center (DAAC) and to validate the results of these algorithms/methods within the operational environment. Most of the tools comprising the integration and test (I&T) environment will be off-the-shelf (OTS), with a few special tools to handle ECS specific issues.

The Algorithm Integration & Test Tools CSCI consists of the software tools and procedures required to do integration and test of the Science Software. Algorithm I&T hardware (e.g., I&T workstations, and hardware for the test and backup strings) is defined in a separate hardware configuration item (hardware CI or HWCI).

The boundaries between the hardware, software, and operations associated with algorithm integration and test are not strictly separable. Operational procedures drive requirements for software tools and hardware. The selection of commercial off-the-shelf (COTS) software to satisfy software requirements is intimately associated with the selection of hardware platforms. Requirements for profiling and certain types of code checking, which exist only for the purposes of I&T, may be satisfied by the hardware CI, since many of these utilities are routinely bundled with operating systems and development environments.

The Algorithm Integration & Test Tools CSCI currently contains the following categories of requirements:

Requirements for tools:

- *Delivery of Science Software* - probably an ingest client supplied by Ingest
- *Viewing Science Software Documentation* - tools to display and print documentation that comes with a delivery
- *Checking Coding Standards* - tools to check compliance with ESDIS standards, guidelines for the Science Software, and SDP Toolkit usage requirements
- *Checking for Programming Errors* - static and dynamic code checkers
- *Data Visualization* - data visualization tools
- *File Comparison* - tools to compare test output files generated at the SCF with the outputs of the same tests run at the DAAC. These tools need to be able to ignore small differences due to differences in precision, and therefore are likely to be custom tools, not COTS.
- *Profiling* - tools to measure performance and resource usage
- *Adding an Algorithm Package Update to a Data Server* - GUI interfacing with the Data Server to view, update, add and delete a tested algorithm (and its associated test and documentation files) from/to the archives
- *Updating the PGE Database* - GUI interfacing with the Planning Subsystem to add the resource usage information to the planning and processing databases and ability to update a PGE with information from predesignated files
- *Configuration Management* - CM tool and problem tracking tool, supplied by CSMS
- *Report Generation* - word processors, spreadsheets, plotting programs, drawing tools
- *Manual Staging of Inputs* - GUI interfacing with the Data Server to retrieve data files from the archives to be used as test inputs
- *Display of Product Metadata* - tool to allow the Product metadata to be inspected for correctness

Operational requirements:

- *Inspection of the Delivery Package* - procedures for receiving and running initial checks on the Science Software Delivery
- *Integration* - procedures for integrating the Science Software into the DAAC environment
- *Acceptance* - procedures for acceptance testing the Science Software
- *Reporting* - reporting requirements for Science Software Integration and Test

This table below also contains the AITTL CI requirements that define the capabilities for the following:

- Delivery of Science Software. The first step in the integration and test process is the delivery of the Science Software to the DAAC. These requirements relate to the ability of the system to ingest a Science Software Delivery, and to transfer the delivery to the integration and test personnel.
- Viewing Science Software Documentation. A Science Software Delivery usually will contain some number of documentation files. These requirements relate to the need for tools that will allow the integration and test personnel to read this documentation.

- Checking of Coding Standards. Science Software source code and shell scripts are required to follow certain coding standards in order to be portable and in order to run properly with the SDP Toolkit libraries. One of the functions of integration and test is therefore to ensure that the Science Software does in fact follow these coding standards. These requirements relate to the need for automated standards checking tools.
- Checking for Programming Errors. Delivered Science Software will not be perfect, so tools that can find program errors before the algorithms are actually run will greatly improve the Science Integration and Test process. One such set of tools are static and dynamic code analyzers to pinpoint errors such as memory leaks, out of bounds indexing, argument list mismatches, and incomplete code coverage. These requirements relate to the need for such tools.
- Data Visualization. Another set of diagnostic tools required by the integration and test personnel are data visualization tools to facilitate the examination of Science Software input, output, and intermediate data files. These requirements relate to the need for data visualization tools. Note: The data visualization requirements for integration and test are not necessarily the same as the data visualization requirements for external users.
- Comparison of files. The bulk of the acceptance testing will consist of rerunning tests at the DAAC that have previously been run at the SCF, and comparing the outputs produced at the two sites. Therefore, there is a need for a file comparison utility. A particular requirement of ECS is that this utility be able to compare files that were produced on machines with different precision, and to filter out differences that are due only to precision differences. These requirements relate to the need for such a specialized file comparison tool.
- Profiling. Another job of the integration and test process is to measure certain resource requirements of the Science Software, such as disk space requirements, memory requirements, CPU time, and so on. There are a couple of reasons for this. One is for diagnostic purposes—if the actual and predicted resource requirements are wildly divergent, there is probably a problem somewhere. Another is to collect certain parameters that are required by Planning and Processing to run the Science Software properly; these parameters must be measured by the integration and test personnel and loaded into the PGE Database for this purpose. These requirements relate to the need for profiling tools to collect these measurements.
- Adding an Algorithm Package or Algorithm Package Update to a Data Server. Once the Science Software has been successfully integrated and tested, the delivery files along with additional files and reports generated during the integration and test process, must be archived in the Data Server and made accessible to external users. These requirements relate to the need for an interface to allow the integration and test personnel to add the files to the Data Server.
- Updating the PGE Database. In order for the Planning and Processing CIs to run the Science Software correctly, they must have access to certain resource usage information, such as the amount of disk space a PGE will consume, how long it will run, and so on. This information is stored in the PGE Database and accessed as required by Planning and Processing. Therefore, the integration and test personnel will need an interface to the PGE

Database in order to load this information. These requirements relate to the need for such an interface.

- Configuration Management. From the time that the Science Software Delivery is received, and throughout the integration and test process, the delivery files and additional test files must be placed under configuration control. These requirements relate to the need for configuration management tools.
- Report Generation. The integration and test personnel will need to write a number of reports, as well as keep an integration and test log that can be accessed by certain external, authorized users (such as the developers). These requirements relate to the need for tools to allow such reports and logs to be created and maintained.
- Manual Staging of Inputs. During the initial stages of integration and test, the integration and test personnel will need to run PGEs manually, rather than immediately going through the planning and processing system. Any required inputs that are located in the Data Server will need to be staged manually during this time (since data staging is done automatically only by planning and processing). These requirements relate to the need for a tool to manually stage data.
- Display of Product Metadata. As part of verifying that a test run is correct, the integration and test personnel must be able to examine the Product metadata that is generated by the run. These requirements relate to the need for a tool to display Product metadata.
- Inspection of the Delivery Package. These requirements deal with the inspection of a new science software delivery. The contents of the Package are checked against the file inventory found in the Delivery Memo file in the Package. In addition, the Package contents are checked for completeness, consistency and correctness. Source code and scripts are checked against standards. Test plans and documentation are reviewed for completeness.
- Integration. These operational requirements deal with the integration of the science software delivery into the production environment. Source code is first compiled and object code is linked with appropriate libraries. Initially, the Science Software is linked with the SCF version of the Toolkit. The output files are compared to the test output files received in the Delivery Package. Performance statistics are monitored and recorded during execution of the software. The software modules are run with dynamic code checkers and debuggers to help identify any problems. The Science Software object modules are then linked with the Toolkit version resident at the DAAC for further integration with the ECS environment. The output files are again compared with the test output files.
- Acceptance Testing. These operational requirements deal with acceptance testing of the science software delivery. The test plan(s) are executed to determine how well the software operates and interfaces with its production environment. Tests employing static input data are performed to ensure that the Science Software performs in the same manner at the DAAC as at their SCF. Additionally, the Science Software undergoes a parallel or commissioning testing period prior to operational implementation.

- Reporting. The following operational requirements deal with reporting of I&T activities. The steps performed during the I&T of the Science Software, results and actions are recorded. Discrepancy reports and their resolution must also be tracked. Various status reports may be required, depending on the nature and extent of the I&T.

4.7.2.2.4 SPRHW - Science Processing HWCI

The Science Processing HWCI (SPRHW) is the primary HWCI in the Processing Subsystem containing staging (working storage), input/output (I/O), and processing resources necessary to perform routine processing and subsequent reprocessing. This HWCI consists of 2 components: (1) Science Processing and (2) Processing Queue Management.

4.7.2.2.5 AITHW - Algorithm Integration and Test HWCI

The Algorithm Integration & Test HWCI (AITHW) is an HWCI contained within the Processing Subsystem, which provides hardware resources to support DAAC operations and users

performing science data Algorithm Integration & Test (AI&T), system validation and integration and test. Science processors supporting AI&T are contained within the SPRHW CI. The AITHW CI will not interfere with operations in science processing and will have enough capacity to be used as a backup resource.

4.7.2.2.6 AQAHW - Algorithm QA HWCI

The Algorithm Quality Assurance HWCI (AQAHW) is a HWCI within the Processing Subsystem, which contains hardware resources to support DAAC operations and users performing planned routine QA of product data. This HWCI consists of QA monitors and workstations ranging from X-terminals to small user workstations to medium or large graphics workstations. The complement is site dependent and is a function of classes of production performed.

4.7.3 Requirements Table

The following table lists all DPS L4 requirements for Releases Ir1, A & B in numerical order together with their RbR parent requirements.

Data Processing Subsystem L4 to RbR traceability (1 of 190)

L4 ID	Rel	L4 Text	RbR ID	RbR Text
S-DPS-20010	A	The PRONG CI shall be developed with configuration-controlled Application Programming Interfaces (APIs) to support the development and integration of DAAC value-added processing.	PGS-1400#A	The PGS shall be developed with configuration-controlled application programming interfaces (APIs) that will be capable of supporting development and integration of new algorithms developed at each DAAC to support DAAC value-added production.
			PGS-1400#B	The PGS shall be developed with configuration-controlled application programming interfaces (APIs) that will be capable of supporting development and integration of new algorithms developed at each DAAC to support DAAC value-added production.
S-DPS-20020	B	The PRONG CI shall have the capability to incorporate DAAC-developed software required to support discipline specific needs.	PGS-1410#B	The PGS shall provide the capability for each DAAC to add to the data production environment toolkit DAAC-developed software required to support discipline specific needs.
			EOSD1705#B	ECS shall support interfaces to DAAC Unique components.
S-DPS-20030	B	The PRONG CI shall be capable of operating in a 24-hour a day, 7-day week mode.	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-20040	A	The PRONG CI design and implementation shall have the flexibility to accomodate Processing expansion up to a factor of 3 in its capacity with no changes to the design, and up to a factor of 10 without major changes to its design. Such expansion in capacity or capability shall be transparent to existing algorithms or product specifications.	EOSD0545#A	ECS shall be able to accommodate growth (e.g., capacity) in all of its functions as well as the addition of new functions.
			PGS-1270#B	The PGS design and implementation shall have the flexibility to accommodate PGS expansion up to a factor of 3 in the processing capacity with no changes to the processing design, and up to a factor of 10 without major changes to the processing design. Such expansion in capacity or capability shall be transparent to existing algorithms or product specifications. This requirement shall apply to the system at all phases of contract performance, including the final system which accommodates the product growth specified in Appendix C, as well as the at-launch system.

Data Processing Subsystem L4 to RbR traceability

L4 ID	Rel	L4 Text	RbR ID	RbR Text
			PGS-1270#A	The PGS design and implementation shall have the flexibility to accommodate PGS expansion up to a factor of 3 in the processing capacity with no changes to the processing design, and up to a factor of 10 without major changes to the processing design. Such expansion in capacity or capability shall be transparent to existing algorithms or product specifications. This requirement shall apply to the system at all phases of contract performance, including the final system which accommodates the product growth specified in Appendix C, as well as the at-launch system.
S-DPS-20100	A	The PRONG CI shall request information about the health and availability of a Hardware Resource by using a Systems Management Subsystem (MSS) provided Resource Management API (Application Program Interface).	PGS-0310#A	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
			SDPS0140#A	The SDPS shall support element, system, and subsystem test activities throughout the development phase.
			PGS-0340#B	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
			PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
			PGS-0340#A	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
S-DPS-20120	A	The PRONG CI shall inform the MSS using a MSS provided Fault Management API when a fault attributed to a MSS managed resource has occurred.	SDPS0010#A	The SDPS shall provide CSMS with operational, data processing, and data quality.

			PGS-0430#B	The PGS shall utilize the LSM to monitor and account for data and information transfer between it and other EOSDIS elements.
			PGS-0340#B	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
			PGS-0330#B	The PGS shall report detected processing system faults to the SMC.
			PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
			PGS-0430#A	The PGS shall utilize the LSM to monitor and account for data and information transfer between it and other EOSDIS elements.
			PGS-0340#A	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
			PGS-0330#A	The PGS shall report detected processing system faults to the SMC.
			PGS-0310#A	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
			SDPS0010#B	The SDPS shall provide CSMS with operational, data processing, data quality and accounting status.
S-DPS-20130	A	The PRONG CI shall provide Fault Management data to the MSS using a MSS provided Fault Management API.	SDPS0010#B	The SDPS shall provide CSMS with operational, data processing, data quality and accounting status.

			SDPS0010#A	The SDPS shall provide CSMS with operational, data processing, and data quality.
			PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
			PGS-0430#A	The PGS shall utilize the LSM to monitor and account for data and information transfer between it and other EOSDIS elements.
			PGS-0430#B	The PGS shall utilize the LSM to monitor and account for data and information transfer between it and other EOSDIS elements.
			PGS-0340#B	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
			PGS-0330#B	The PGS shall report detected processing system faults to the SMC.
			PGS-0340#A	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
			PGS-0330#A	The PGS shall report detected processing system faults to the SMC.
			PGS-0310#A	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
S-DPS-20140	A	The PRONG CI shall provide Performance Management data to the MSS using a MSS provided Performance Management API.	SDPS0010#A	The SDPS shall provide CSMS with operational, data processing, and data quality.

			PGS-0310#A	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
			PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
			SDPS0010#B	The SDPS shall provide CSMS with operational, data processing, data quality and accounting status.
S-DPS-20150	B	The PRONG CI shall provide Accounting Management data to the MSS using a MSS provided Accounting Management API.	SDPS0010#B	The SDPS shall provide CSMS with operational, data processing, data quality and accounting status.
S-DPS-20160	A	The PRONG CI shall provide Accountability Management data to the MSS using a MSS provided Accountability Management API.	SDPS0010#B	The SDPS shall provide CSMS with operational, data processing, data quality and accounting status.
			PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.

S-DPS-20170	A	The operations staff shall have the capability to modify the configuration of Data Processing subsystem Hardware resources.	PGS-0310#A	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
			PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
S-DPS-20180	A	The PRONG CI shall provide an interface to support the modification of the configuration of the Data Processing subsystem Hardware resources.	PGS-0310#A	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
			PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.

S-DPS-20190	A	The PRONG CI shall have the capability to modify the configuration of the Data Processing subsystem Hardware resources.	PGS-0310#A	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
S-DPS-20191	B	The PRONG CI shall have the capability to modify the configuration settings of the Data Processing subsystem Hardware resources.	PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
S-DPS-20200	B	The PRONG CI shall provide Configuration Management data to the MSS using a MSS provided Configuration Management API.	PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
S-DPS-20210	A	The PRONG CI shall have the capability to determine the Operational state of a Hardware or Software component.	PGS-0310#A	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
			PGS-0330#A	The PGS shall report detected processing system faults to the SMC.

			PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
			PGS-0340#A	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
			PGS-0430#B	The PGS shall utilize the LSM to monitor and account for data and information transfer between it and other EOSDIS elements.
			PGS-0340#B	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
			PGS-0330#B	The PGS shall report detected processing system faults to the SMC.
			PGS-0430#A	The PGS shall utilize the LSM to monitor and account for data and information transfer between it and other EOSDIS elements.
S-DPS-20220	A	The operations staff shall have the capability to request a Data Processing Subsystem Resource Utilization Report from the MSS based on time span, resource classification, or operational role.	PGS-0310#A	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
			PGS-0370#A	The PGS shall utilize the LSM to generate a PGS resource utilization report.
			PGS-0370#B	The PGS shall utilize the LSM to generate a PGS resource utilization report.

			PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
S-DPS-20230	A	The PRONG CI shall provide Security Management data to the MSS using a MSS provided Security Management API.	PGS-0310#A	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
			PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
S-DPS-20240	A	The PRONG CI shall provide Scheduling Management data to the MSS using a MSS provided Scheduling Management API.	PGS-0310#A	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.

			PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
S-DPS-20330	A	The PRONG CI shall accept a Cancel Data Processing Request message to delete a Data Processing Request from the Processing Queue.	PGS-0160#A	The PGS shall receive standing orders, changes to standing orders, and product requests from the IMS.
			PGS-0160#B	The PGS shall receive standing orders, changes to standing orders, and product requests from the IMS.
S-DPS-20340	A	The PRONG CI shall reject a Cancel Data Processing Request if the Cancel Data Processing Request is received from an unauthorized source.	PGS-0160#A	The PGS shall receive standing orders, changes to standing orders, and product requests from the IMS.
			PGS-0160#B	The PGS shall receive standing orders, changes to standing orders, and product requests from the IMS.
			EOSD2400#A	ECS shall provide multiple categories of data protection based on the sensitivity levels of ECS data, as defined in NHB 2410.9.
			EOSD2400#B	ECS shall provide multiple categories of data protection based on the sensitivity levels of ECS data, as defined in NHB 2410.9.
S-DPS-20400	A	The PRONG CI shall accept a Data Processing Request (DPR) that requests the execution of a PGE.	PGS-0160#A	The PGS shall receive standing orders, changes to standing orders, and product requests from the IMS.
			PGS-0160#B	The PGS shall receive standing orders, changes to standing orders, and product requests from the IMS.
			SDPS0031#A	The SDPS shall generate browse data and metadata for routing to the requesting users.

			PGS-0250#B	The PGS shall schedule product generation when all inputs required to generate a Standard Product for which there is a current order (from IMS) are available. Entries in the schedule shall contain, at a minimum: a. The product to be generated b. The specific algorithm(s) and calibration coefficients to be used c. The specific data sets needed and their sizes d. Priorities and deadlines that apply to the order for the product
			PGS-0250#A	The PGS shall schedule product generation when all inputs required to generate a Standard Product for which there is a current order (from IMS) are available. Entries in the schedule shall contain, at a minimum: a. The product to be generated b. The specific algorithm(s) and calibration coefficients to be used c. The specific data sets needed and their sizes d. Priorities and deadlines that apply to the order for the product
S-DPS-20410	A	The PRONG CI shall validate the information associated with the Data Processing Request.	PGS-0160#A	The PGS shall receive standing orders, changes to standing orders, and product requests from the IMS.
			PGS-0160#B	The PGS shall receive standing orders, changes to standing orders, and product requests from the IMS.
S-DPS-20420	A	The PRONG CI shall reject a Data Processing Request if the Data Processing Request is received from an unauthorized source.	EOSD2400#B	ECS shall provide multiple categories of data protection based on the sensitivity levels of ECS data, as defined in NHB 2410.9.
			PGS-0160#A	The PGS shall receive standing orders, changes to standing orders, and product requests from the IMS.
			PGS-0160#B	The PGS shall receive standing orders, changes to standing orders, and product requests from the IMS.
			EOSD2400#A	ECS shall provide multiple categories of data protection based on the sensitivity levels of ECS data, as defined in NHB 2410.9.
S-DPS-20430	A	The PRONG CI shall take a pre-determined error recovery action if the PGE identified in the Data Processing Request is not available for execution.	PGS-0160#A	The PGS shall receive standing orders, changes to standing orders, and product requests from the IMS.
			PGS-0160#B	The PGS shall receive standing orders, changes to standing orders, and product requests from the IMS.

S-DPS-20440	A	The PRONG CI shall take a pre-determined error recovery action if the level of validation required for execution in the Data Processing Operational Environment has not been attained by the PGE version identified in the Data Processing Request .	PGS-0500#A	The PGS shall have the capability to generate Level 1 through 4 Standard Products using validated algorithms and calibration coefficients provided by the scientists.
			PGS-0500#B	The PGS shall have the capability to generate Level 1 through 4 Standard Products using validated algorithms and calibration coefficients provided by the scientists.
S-DPS-20460	A	The PRONG CI shall take a pre-determined error recovery action if the resource which maintains the input data is not available for data staging.	PGS-0320#A	The PGS shall display detected faults to the system operators.
			PGS-0330#A	The PGS shall report detected processing system faults to the SMC.
			PGS-0330#B	The PGS shall report detected processing system faults to the SMC.
			PGS-0340#B	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
			PGS-0320#B	The PGS shall display detected faults to the system operators.
			PGS-0340#A	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
S-DPS-20470	A	The PRONG CI shall take a pre-determined error recovery action if the resource identified as the recipient of the Output Data is not available for data destaging.	PGS-0320#A	The PGS shall display detected faults to the system operators.
			PGS-0330#A	The PGS shall report detected processing system faults to the SMC.
			PGS-0340#A	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
			PGS-0340#B	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
			PGS-0330#B	The PGS shall report detected processing system faults to the SMC.

			PGS-0320#B	The PGS shall display detected faults to the system operators.
S-DPS-20480	A	The PRONG CI shall take a pre-determined error recovery action if the computer resource required to execute the PGE is not available.	PGS-0320#A	The PGS shall display detected faults to the system operators.
			PGS-0320#B	The PGS shall display detected faults to the system operators.
			EOSD4020#A	At each DAAC site, the product generation functional capabilities shall be spread across multiple product generation computers thereby providing a "failsoft" environment.
			EOSD4020#B	At each DAAC site, the product generation functional capabilities shall be spread across multiple product generation computers thereby providing a "failsoft" environment.
S-DPS-20490	A	The PRONG CI shall queue only validated Data Processing Requests	PGS-0480#B	The PGS shall have the capability to perform all its processing based on priority.
			PGS-0480#A	The PGS shall have the capability to perform all its processing based on priority.
S-DPS-20500	A	The Processing shall queue the Data Processing Request using the Priority Information associated with the Data Processing Request.	PGS-0480#A	The PGS shall have the capability to perform all its processing based on priority.
			PGS-0480#B	The PGS shall have the capability to perform all its processing based on priority.
S-DPS-20510	A	The PRONG CI shall respond to the source of the Data Processing Request with a Data Processing Request Response upon the completion of validation and queue processing.	PGS-0285#A	The PGS shall transmit to the IMS a status message to confirm or reject a processing order. The reason for rejection shall be included.
S-DPS-20520	A	The Data Processing Request Response shall include a reason for rejection if the Data Processing Request was rejected.	PGS-0285#A	The PGS shall transmit to the IMS a status message to confirm or reject a processing order. The reason for rejection shall be included.

S-DPS-20600	A	The PRONG CI shall be able to determine what data required for PGE execution needs to be staged.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0270#B	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0458#B	The PGS shall use configuration-controlled calibration coefficients and selected engineering data to generate calibrated ancillary data products necessary as input to the generation of Level 1 Standard Products in a timeframe that assures that production schedules for all products can be met.
			SDPS0035#B	The SDPS shall produce derived ancillary products as Standard Products for EOS investigators based on algorithms and coefficients for conversion, calibration, and transformation of selected engineering/housekeeping data parameters.
S-DPS-20610	A	The PRONG CI shall be able to determine that an ECS Data Product required for PGE execution requires staging.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-20620	A	The PRONG CI shall be able to determine that the metadata associated with a ECS Data Product required for PGE execution requires staging.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS

S-DPS-20630	A	The PRONG CI shall be able to determine that an Ancillary Data Product required for PGE execution requires staging.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-20640	A	The PRONG CI shall be able to determine that a Special Data Product required for PGE execution requires staging.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-20650	A	The PRONG CI shall be able to determine that a Calibration Coefficient Data File required for PGE execution requires staging.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0458#B	The PGS shall use configuration-controlled calibration coefficients and selected engineering data to generate calibrated ancillary data products necessary as input to the generation of Level 1 Standard Products in a timeframe that assures that production schedules for all products can be met.
S-DPS-20660	A	The PRONG CI shall be able to determine that a PGE requires staging.	SDPS0035#B	The SDPS shall produce derived ancillary products as Standard Products for EOS investigators based on algorithms and coefficients for conversion, calibration, and transformation of selected engineering/housekeeping data parameters.
			PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS

S-DPS-20670	A	The PRONG CI shall be able to determine that metadata associated with a PGE requires staging.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-20680	A	The PRONG CI shall support the movement of data from one Data Processing subsystem controlled storage resource to another Data Processing subsystem controlled storage resource.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-20690	A	The PRONG CI shall initiate the data staging process when the disk space required to support successful data staging is available.	PGS-0240#A	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.
			PGS-0240#B	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.
			PGS-0470#A	The PGS shall have the capability to produce each Standard Product as specified in that product's Standard Product specification.
			PGS-0470#B	The PGS shall have the capability to produce each Standard Product as specified in that product's Standard Product specification.
S-DPS-20691	B	The PRONG CI shall begin staging data at a time far enough in advance to complete staging of input data prior the predicted start of PGE execution.	PGS-0240#B	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.
S-DPS-20692	B	The PRONG CI shall not begin staging data too far in advance of PGE execution in such a way that unnecessarily utilizes disk space.	PGS-0240#B	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.
S-DPS-20693	B	The PRONG CI input data staging shall avoid the creation of deadlock situations.	PGS-0240#B	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.
S-DPS-20694	B	The PRONG CI shall cancel input data staging if the DPR that initiated the input data staging is canceled.	PGS-0240#B	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.

S-DPS-20695	B	The PRONG CI shall delete the staged data if the DPR that initiated the input data staging is cancelled and no other DPR needs it.	PGS-0240#B	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.
S-DPS-20696	B	The PRONG CI shall complete the input data staging and suspend the PGE job if the suspension command is received at the time of data staging.	PGS-0240#B	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.
S-DPS-20700	A	The PRONG CI shall request data staging by sending a Data Request to the SDSRV CI .	PGS-0470#B	The PGS shall have the capability to produce each Standard Product as specified in that product's Standard Product specification.
			PGS-0520#B	The PGS shall have the capability to generate data products from any single data input or combination of data inputs according to the algorithms provided by the scientists.
			PGS-0190#A	The PGS shall coordinate with the DADS on the staging of data for product generation.
			PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0520#A	The PGS shall have the capability to generate data products from any single data input or combination of data inputs according to the algorithms provided by the scientists.
			PGS-0190#B	The PGS shall coordinate with the DADS on the staging of data for product generation.
			PGS-0470#A	The PGS shall have the capability to produce each Standard Product as specified in that product's Standard Product specification.
S-DPS-20710	A	The PRONG CI shall accept a Data Request Status message in response to the Data Request Message.	PGS-0190#A	The PGS shall coordinate with the DADS on the staging of data for product generation.
			PGS-0190#B	The PGS shall coordinate with the DADS on the staging of data for product generation.

			PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-20720	A	The Data Request Status message shall inform the PRONG CI on the success or failure of data staging.	PGS-0190#A	The PGS shall coordinate with the DADS on the staging of data for product generation.
			PGS-0190#B	The PGS shall coordinate with the DADS on the staging of data for product generation.
			PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-20730	A	The PRONG CI shall provide the capability to terminate the data staging process.	PGS-0190#A	The PGS shall coordinate with the DADS on the staging of data for product generation.
			PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0190#B	The PGS shall coordinate with the DADS on the staging of data for product generation.
S-DPS-20740	A	The PRONG CI shall send an Data Request message to the SDSRV CI to terminate the data staging process.	PGS-0190#A	The PGS shall coordinate with the DADS on the staging of data for product generation.
			PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS

			PGS-0190#B	The PGS shall coordinate with the DADS on the staging of data for product generation.
S-DPS-20750	A	The PRONG CI shall send a Complete Notification Status message to the source of the Data Processing Request if the data staging process was not completed successfully for the Data Processing Request.	PGS-0190#A	The PGS shall coordinate with the DADS on the staging of data for product generation.
			PGS-0380#B	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0380#A	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0190#B	The PGS shall coordinate with the DADS on the staging of data for product generation.
S-DPS-20760	A	The Complete Notification Status message shall contain error information if the message was sent as a result of the failure of data staging.	PGS-0190#A	The PGS shall coordinate with the DADS on the staging of data for product generation.
			PGS-0380#B	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0190#B	The PGS shall coordinate with the DADS on the staging of data for product generation.
			PGS-0380#A	The PGS shall monitor its internal operations and generate a status report periodically and on request.
S-DPS-20770	A	The PRONG CI shall accept ECS Data Products from the SDSRV CI.	PGS-0440#A	The PGS shall accept from the DADS L0-L4 data products. Received information shall contain at a minimum: a. Product identification b. L0-L4 data set c. Metadata required for processing d. Current date and time e. DADS identification

			PGS-0440#B	The PGS shall accept from the DADS L0-L4 data products. Received information shall contain at a minimum: a. Product identification b. L0-L4 data set c. Metadata required for processing d. Current date and time e. DADS identification
S-DPS-20780	A	The PRONG CI shall accept metadata from the SDSRV CI.	PGS-0440#A	The PGS shall accept from the DADS L0-L4 data products. Received information shall contain at a minimum: a. Product identification b. L0-L4 data set c. Metadata required for processing d. Current date and time e. DADS identification
			PGS-0440#B	The PGS shall accept from the DADS L0-L4 data products. Received information shall contain at a minimum: a. Product identification b. L0-L4 data set c. Metadata required for processing d. Current date and time e. DADS identification
S-DPS-20790	A	The PRONG CI shall accept PGEs from the SDSRV CI.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-20800	A	The PRONG CI shall accept Calibration Coefficient data from the SDSRV CI.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0458#B	The PGS shall use configuration-controlled calibration coefficients and selected engineering data to generate calibrated ancillary data products necessary as input to the generation of Level 1 Standard Products in a timeframe that assures that production schedules for all products can be met.

S-DPS-20810	A	The PRONG CI shall accept Special Data Products from the SDSRV CI.	PGS-1230#B	The PGS shall accept special data sets from the DADS. Received information shall contain at a minimum: a. Product identification b. Special data set c. Metadata required for processing d. Current date and time e. DADS identification
S-DPS-20820	A	The PRONG CI shall accept Ancillary Data Products from the SDSRV CI.	PGS-1230#B	The PGS shall accept special data sets from the DADS. Received information shall contain at a minimum: a. Product identification b. Special data set c. Metadata required for processing d. Current date and time e. DADS identification
			PGS-0450#A	The PGS shall accept from the DADS ancillary data sets. Received information shall contain at a minimum: a. Product identification b. Ancillary data set c. Metadata required for processing d. Current date and time e. DADS identification
			PGS-0450#B	The PGS shall accept from the DADS ancillary data sets. Received information shall contain at a minimum: a. Product identification b. Ancillary data set c. Metadata required for processing d. Current date and time e. DADS identification
S-DPS-20830	A	The PRONG CI shall send a Data Insert Request message to the SDSRV CI to initiate the destaging of data.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS

			PGS-0270#B	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-20840	A	The Data Request Status message shall inform the PRONG CI on the success or failure of data destaging.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0270#B	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-20850	A	The PRONG CI shall destage Intermediate Data Products to the SDSRV CI.	PGS-1210#A	The PGS shall coordinate the disposition of PGS data stored temporarily in the DADS.
			PGS-1210#B	The PGS shall coordinate the disposition of PGS data stored temporarily in the DADS.
S-DPS-20860	A	The PRONG CI shall destage ECS Data Products to the SDSRV CI.	PGS-1120#B	The PGS shall send the DADS updated metadata provided by the data product quality staff relating to product QA review. This QA review metadata shall contain the following information at a minimum. a. Product ID b. QA Approval field c. Other metadata
			PGS-1250#B	The PGS shall send the DADS the calibrated ancillary data.

			PGS-1240#B	The PGS shall send the generated Level 1 to Level 4 Standard Products to the DADS. These products shall contain the following information at a minimum: a. Product identification b. L1-L4 data set c. Product processing priority d. Current date and time e. Associated metadata
			SDPS0031#A	The SDPS shall generate browse data and metadata for routing to the requesting users.
			PGS-1120#A	The PGS shall send the DADS updated metadata provided by the data product quality staff relating to product QA review. This QA review metadata shall contain the following information at a minimum. a. Product ID b. QA Approval field c. Other metadata
			PGS-1250#A	The PGS shall send the DADS the calibrated ancillary data.
			PGS-1240#A	The PGS shall send the generated Level 1 to Level 4 Standard Products to the DADS. These products shall contain the following information at a minimum: a. Product identification b. L1-L4 data set c. Product processing priority d. Current date and time e. Associated metadata
S-DPS-20870	A	The PRONG CI shall send a Complete Notification Status message to the source of the Data Processing Request if the data destaging process was not completed successfully for the Data Processing Request.	PGS-0380#A	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0380#B	The PGS shall monitor its internal operations and generate a status report periodically and on request.
S-DPS-20880	A	The Complete Notification Status message shall contain error information if the message was sent as a result of the failure of data destaging.	PGS-0380#A	The PGS shall monitor its internal operations and generate a status report periodically and on request.

			PGS-0380#B	The PGS shall monitor its internal operations and generate a status report periodically and on request.
S-DPS-21000	A	The PRONG CI shall initiate execution of a PGE when the following is true: a. When all input data required to execute the PGE is available on local Data Processing subsystem storage resources. b. When the computer hardware resources are available to support execution of a PGE based on the computer hardware resource information associated with the Data Processing Request. c. When the Priority Information associated with the Data Processing Request has been fulfilled. d. When the maximum disk space requirements defined for the PGE are available to support the successful execution of the PGE e. When the maximum memory resources defined for the PGE are available to support the successful execution of the PGE f. When the CPU resources defined for the PGE are available to support the successful execution of the PGE	SDPS0031#A	The SDPS shall generate browse data and metadata for routing to the requesting users.
			PGS-0240#A	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.
			PGS-0240#B	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.
			PGS-0560#A	The PGS shall maintain copies of generated products to be used as inputs to other scheduled products for processing efficiency.
			PGS-0520#A	The PGS shall have the capability to generate data products from any single data input or combination of data inputs according to the algorithms provided by the scientists.

			PGS-0480#A	The PGS shall have the capability to perform all its processing based on priority.
			PGS-0470#A	The PGS shall have the capability to produce each Standard Product as specified in that product's Standard Product specification.
			PGS-0470#B	The PGS shall have the capability to produce each Standard Product as specified in that product's Standard Product specification.
			PGS-0480#B	The PGS shall have the capability to perform all its processing based on priority.
			PGS-0520#B	The PGS shall have the capability to generate data products from any single data input or combination of data inputs according to the algorithms provided by the scientists.
			PGS-0560#B	The PGS shall maintain copies of generated products to be used as inputs to other scheduled products for processing efficiency.
S-DPS-21070	A	The PRONG CI shall allocate disk space to support the execution of a PGE.	PGS-0470#B	The PGS shall have the capability to produce each Standard Product as specified in that product's Standard Product specification.
			PGS-0240#A	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.
			PGS-0240#B	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.
			PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0470#A	The PGS shall have the capability to produce each Standard Product as specified in that product's Standard Product specification.
S-DPS-21080	A	The PRONG CI shall allocate memory to support the execution of a PGE.	PGS-0240#A	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.

			PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0240#B	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.
			PGS-0470#A	The PGS shall have the capability to produce each Standard Product as specified in that product's Standard Product specification.
			PGS-0470#B	The PGS shall have the capability to produce each Standard Product as specified in that product's Standard Product specification.
S-DPS-21090	A	The PRONG CI shall allocate CPU to support the execution of a PGE.	PGS-0470#B	The PGS shall have the capability to produce each Standard Product as specified in that product's Standard Product specification.
			PGS-0240#A	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.
			PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0240#B	The PGS shall perform reprocessing according to the PGS reprocessing plan and the availability of resources.
			PGS-0470#A	The PGS shall have the capability to produce each Standard Product as specified in that product's Standard Product specification.
S-DPS-21120	A	The PRONG CI shall create a Process Control File to provide information to the SDP Toolkit CI about the input data required to execute a PGE.	PGS-0970#A	The PGS shall provide §le access subroutines that enforce compliance with the adopted standard ECS formats.

			PGS-0980#A	The PGS shall provide job control routines that provide all required task parameters to the Standard Product software.
			PGS-0970#B	The PGS shall provide §le access subroutines that enforce compliance with the adopted standard ECS formats.
			PGS-0980#B	The PGS shall provide job control routines that provide all required task parameters to the Standard Product software.
S-DPS-21124	B	The PRONG CI shall receive advertisements from the IOS.	IMS-0550#B	The IMS shall allow a user to locate and identify desired data without detailed knowledge of the ECSs: a. Architecture b. Data Base management system c. Data Base structure d. Query languages e. Data formats
S-DPS-21126	B	The PRONG CI shall send advertisement subscriptions to the IOS.	IMS-0550#B	The IMS shall allow a user to locate and identify desired data without detailed knowledge of the ECSs: a. Architecture b. Data Base management system c. Data Base structure d. Query languages e. Data formats
S-DPS-21130	A	The PRONG CI shall create a Process Control File to provide information to the SDP Toolkit CI about the output data generated from the executing PGE.	PGS-0970#B	The PGS shall provide §le access subroutines that enforce compliance with the adopted standard ECS formats.
			PGS-0980#B	The PGS shall provide job control routines that provide all required task parameters to the Standard Product software.
			PGS-0970#A	The PGS shall provide §le access subroutines that enforce compliance with the adopted standard ECS formats.
			PGS-0980#A	The PGS shall provide job control routines that provide all required task parameters to the Standard Product software.
S-DPS-21140	A	The PRONG CI shall create a mapping of logical file handles to physical file handles in the Process Control File for the input data required to execute a PGE.	PGS-0970#A	The PGS shall provide §le access subroutines that enforce compliance with the adopted standard ECS formats.

			PGS-0980#A	The PGS shall provide job control routines that provide all required task parameters to the Standard Product software.
			PGS-0970#B	The PGS shall provide §le access subroutines that enforce compliance with the adopted standard ECS formats.
			PGS-0980#B	The PGS shall provide job control routines that provide all required task parameters to the Standard Product software.
S-DPS-21150	A	The PRONG CI shall create a mapping of logical file handles to physical file handles in the Process Control File for the output data generated from the executing PGE.	PGS-0970#B	The PGS shall provide §le access subroutines that enforce compliance with the adopted standard ECS formats.
			PGS-0980#B	The PGS shall provide job control routines that provide all required task parameters to the Standard Product software.
			PGS-0970#A	The PGS shall provide §le access subroutines that enforce compliance with the adopted standard ECS formats.
			PGS-0980#A	The PGS shall provide job control routines that provide all required task parameters to the Standard Product software.
S-DPS-21160	A	The PRONG CI shall create a Status Message File to be used by the SDP Toolkit CI to collect Toolkit status and error information about the execution of a PGE.	PGS-0990#A	The PGS shall provide error logging subroutines for use by Standard Product software in notifying the system operators of conditions requiring their attention.
			PGS-1000#A	The PGS shall provide error logging subroutines for use by Standard Product software in notifying users of conditions requiring their attention.
			PGS-0990#B	The PGS shall provide error logging subroutines for use by Standard Product software in notifying the system operators of conditions requiring their attention.
			PGS-1000#B	The PGS shall provide error logging subroutines for use by Standard Product software in notifying users of conditions requiring their attention.
S-DPS-21170	A	The PRONG CI shall create User Status Message Files to be used by the SDP Toolkit CI during PGE execution if requested through the data defining the characteristics of the PGE.	PGS-0990#B	The PGS shall provide error logging subroutines for use by Standard Product software in notifying the system operators of conditions requiring their attention.

			PGS-1000#B	The PGS shall provide error logging subroutines for use by Standard Product software in notifying users of conditions requiring their attention.
			PGS-0990#A	The PGS shall provide error logging subroutines for use by Standard Product software in notifying the system operators of conditions requiring their attention.
			PGS-1000#A	The PGS shall provide error logging subroutines for use by Standard Product software in notifying users of conditions requiring their attention.
S-DPS-21180	A	The PRONG CI shall allocate 1 shared memory attachment to a PGE to support access to internal memory during execution.	PGS-0990#A	The PGS shall provide error logging subroutines for use by Standard Product software in notifying the system operators of conditions requiring their attention.
			PGS-1000#A	The PGS shall provide error logging subroutines for use by Standard Product software in notifying users of conditions requiring their attention.
			PGS-0990#B	The PGS shall provide error logging subroutines for use by Standard Product software in notifying the system operators of conditions requiring their attention.
			PGS-1000#B	The PGS shall provide error logging subroutines for use by Standard Product software in notifying users of conditions requiring their attention.
S-DPS-21210	A	The PRONG CI shall monitor the use of disk space by a PGE during execution.	PGS-0310#A	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
			PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.

S-DPS-21220	A	The PRONG CI shall take a predetermined error recovery action if the maximum disk space requirements defined for that PGE has been exceeded by an adaptable percentage value.	PGS-0340#A	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
			PGS-0340#B	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
S-DPS-21230	A	The PRONG CI shall take a predetermined error recovery action if the maximum CPU time requirements defined for that PGE has been exceeded by an adaptable percentage value.	PGS-0340#A	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
			PGS-0340#B	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
S-DPS-21240	A	The PRONG CI shall take a predetermined error recovery action if the maximum memory usage requirements defined for that PGE has been exceeded by an adaptable percentage value.	PGS-0340#A	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
			PGS-0340#B	The PGS shall utilize fault isolation tools provided by the LSM for the PGS and its subsystems.
S-DPS-21320	A	The PRONG CI shall use a SDP Toolkit API to associate Processing-Specific Metadata with each Granule of a generated Data Product.	PGS-0510#A	The PGS shall have the capability to generate metadata (see Appendix C) according to the algorithms provided by the scientists and associate this metadata with each Standard Product generated.
			PGS-0510#B	The PGS shall have the capability to generate metadata (see Appendix C) according to the algorithms provided by the scientists and associate this metadata with each Standard Product generated.
S-DPS-21330	A	The PRONG CI shall provide Processing-Specific Metadata to the SDP Toolkit to be associated with each Granule of a generated Data Product.	PGS-0510#B	The PGS shall have the capability to generate metadata (see Appendix C) according to the algorithms provided by the scientists and associate this metadata with each Standard Product generated.
			PGS-0510#A	The PGS shall have the capability to generate metadata (see Appendix C) according to the algorithms provided by the scientists and associate this metadata with each Standard Product generated.

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S-DPS-21460	A	The PRONG CI shall use a SDP Toolkit API to associate Q/A-Specific Metadata with each Granule of a Data Product.	PGS-0510#A	The PGS shall have the capability to generate metadata (see Appendix C) according to the algorithms provided by the scientists and associate this metadata with each Standard Product generated.
			PGS-1200#A	The PGS shall have the capability to generate a data quality assessment report including a description of the quality of each processed product as well as the quality of each of the products input data sets.
			PGS-1120#A	The PGS shall send the DADS updated metadata provided by the data product quality staff relating to product QA review. This QA review metadata shall contain the following information at a minimum. a. Product ID b. QA Approval field c. Other metadata
			PGS-1110#A	The PGS shall have the capability to associate data quality with a generated product.
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1060#A	The PGS shall have the capability to perform automatic QA of generated products utilizing algorithms provided by the scientists.
			PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-0510#B	The PGS shall have the capability to generate metadata (see Appendix C) according to the algorithms provided by the scientists and associate this metadata with each Standard Product generated.
			PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.

			PGS-1120#B	The PGS shall send the DADS updated metadata provided by the data product quality staff relating to product QA review. This QA review metadata shall contain the following information at a minimum. a. Product ID b. QA Approval field c. Other metadata
			PGS-1200#B	The PGS shall have the capability to generate a data quality assessment report including a description of the quality of each processed product as well as the quality of each of the products input data sets.
			PGS-1110#B	The PGS shall have the capability to associate data quality with a generated product.
			PGS-1060#B	The PGS shall have the capability to perform automatic QA of generated products utilizing algorithms provided by the scientists.
S-DPS-21490	A	The PRONG CI shall record the Q/A-Specific Metadata of each input Data Product as part of the Q/A-Specific Metadata of the Granule of a Data Product.	PGS-1200#B	The PGS shall have the capability to generate a data quality assessment report including a description of the quality of each processed product as well as the quality of each of the products input data sets.
			PGS-1200#A	The PGS shall have the capability to generate a data quality assessment report including a description of the quality of each processed product as well as the quality of each of the products input data sets.
S-DPS-21500	A	The PRONG CI shall use algorithms provided by the scientists to perform automated QA on generated Data Products.	PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1060#A	The PGS shall have the capability to perform automatic QA of generated products utilizing algorithms provided by the scientists.
			PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1060#B	The PGS shall have the capability to perform automatic QA of generated products utilizing algorithms provided by the scientists.
S-DPS-21510	A	The PRONG CI shall support the capability to update Q/A metadata as required by the execution of a PGE performing automated Q/A.	PGS-0510#B	The PGS shall have the capability to generate metadata (see Appendix C) according to the algorithms provided by the scientists and associate this metadata with each Standard Product generated.

			PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1060#B	The PGS shall have the capability to perform automatic QA of generated products utilizing algorithms provided by the scientists.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1150#B	The PGS shall have the capability to accept the identification of products that are not to be stored in the DADS due to inferior quality or other reasons. The reason for all such actions shall also be specified.
			PGS-1200#B	The PGS shall have the capability to generate a data quality assessment report including a description of the quality of each processed product as well as the quality of each of the products input data sets.
			PGS-1120#B	The PGS shall send the DADS updated metadata provided by the data product quality staff relating to product QA review. This QA review metadata shall contain the following information at a minimum. a. Product ID b. QA Approval field c. Other metadata
			PGS-1110#B	The PGS shall have the capability to associate data quality with a generated product.
			PGS-0510#A	The PGS shall have the capability to generate metadata (see Appendix C) according to the algorithms provided by the scientists and associate this metadata with each Standard Product generated.
			PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.

			PGS-1060#A	The PGS shall have the capability to perform automatic QA of generated products utilizing algorithms provided by the scientists.
			PGS-1200#A	The PGS shall have the capability to generate a data quality assessment report including a description of the quality of each processed product as well as the quality of each of the products input data sets.
			PGS-1150#A	The PGS shall have the capability to accept the identification of products that are not to be stored in the DADS due to inferior quality or other reasons. The reason for all such actions shall also be specified.
			PGS-1120#A	The PGS shall send the DADS updated metadata provided by the data product quality staff relating to product QA review. This QA review metadata shall contain the following information at a minimum. a. Product ID b. QA Approval field c. Other metadata
			PGS-1110#A	The PGS shall have the capability to associate data quality with a generated product.
S-DPS-21520	A	The PRONG CI shall coordinate the deletion of the outputs of a PGE which were temporarily stored in the SDSRV CI.	PGS-0560#A	The PGS shall maintain copies of generated products to be used as inputs to other scheduled products for processing efficiency.
			PGS-1150#A	The PGS shall have the capability to accept the identification of products that are not to be stored in the DADS due to inferior quality or other reasons. The reason for all such actions shall also be specified.
			PGS-1210#A	The PGS shall coordinate the disposition of PGS data stored temporarily in the DADS.
			PGS-0560#B	The PGS shall maintain copies of generated products to be used as inputs to other scheduled products for processing efficiency.
			PGS-1210#B	The PGS shall coordinate the disposition of PGS data stored temporarily in the DADS.
			PGS-1150#B	The PGS shall have the capability to accept the identification of products that are not to be stored in the DADS due to inferior quality or other reasons. The reason for all such actions shall also be specified.
S-DPS-21530	A	The PRONG CI shall assign a unique Granule Identifier to each Granule of a generated Data Product.	PGS-0512#B	The PGS shall generate unique granule IDs for all products generated at the PGS.

			PGS-0512#A	The PGS shall generate unique granule IDs for all products generated at the PGS.
S-DPS-21540	A	The PRONG CI shall destage all output data generated by a PGE to the SDSRV CI. (SEE Data Staging and Destaging Reqs for more details).	PGS-0560#A	The PGS shall maintain copies of generated products to be used as inputs to other scheduled products for processing efficiency.
			PGS-1210#A	The PGS shall coordinate the disposition of PGS data stored temporarily in the DADS.
			PGS-0560#B	The PGS shall maintain copies of generated products to be used as inputs to other scheduled products for processing efficiency.
			EOSD2990#A	The ECS elements shall support the recovery from a system failure due to a loss in the integrity of the ECS data or a catastrophic violation of the security system.
			PGS-1210#B	The PGS shall coordinate the disposition of PGS data stored temporarily in the DADS.
			EOSD2990#B	The ECS elements shall support the recovery from a system failure due to a loss in the integrity of the ECS data or a catastrophic violation of the security system.
S-DPS-21550	A	The PRONG CI shall not delete the output data generated by a PGE until the Data Request Status message is received from the SDSRV CI indicating that the output data was successfully copied to the SDSRV CI resources.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-21560	A	If the resource fails during the execution of a PGE, the PRONG CI shall be capable of initiating the execution of the PGE without having to regenerate that PGE's input data.	EOSD2990#A	The ECS elements shall support the recovery from a system failure due to a loss in the integrity of the ECS data or a catastrophic violation of the security system.
			EOSD2990#B	The ECS elements shall support the recovery from a system failure due to a loss in the integrity of the ECS data or a catastrophic violation of the security system.
S-DPS-21570	A	If a PGE fails abnormally during execution, the PRONG CI shall be capable of initiating the execution of the PGE without having to regenerate that PGE's input data.	EOSD2990#B	The ECS elements shall support the recovery from a system failure due to a loss in the integrity of the ECS data or a catastrophic violation of the security system.

			EOSD2990#A	The ECS elements shall support the recovery from a system failure due to a loss in the integrity of the ECS data or a catastrophic violation of the security system.
S-DPS-21580	A	The PRONG CI shall send a Complete Notification Status message to the source of the Data Processing Request at the completion of PGE execution if the execution was terminated by the PRONG CI or the outputs of the PGE did not require destaging.	PGS-0380#A	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0380#B	The PGS shall monitor its internal operations and generate a status report periodically and on request.
S-DPS-21590	A	Upon the completion of destaging, the PRONG CI shall send a Complete Notification Status message to the source of the Data Processing Request.	PGS-0380#A	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0380#B	The PGS shall monitor its internal operations and generate a status report periodically and on request.
S-DPS-21700	A	The operations staff shall have the capability of terminating the data staging process for a Data Processing Request.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-21710	A	The operations staff shall have the capability of terminating the data destaging process for a Data Processing Request.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-21720	A	The operations staff shall have the capability of canceling the processing of a Data Processing Request.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS

			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-21730	B	The operations staff shall have the capability to suspend the processing of a Data Processing Request.	PGS-1160#B	The PGS shall have the capability to accept from the product quality staff commands to suspend specified production processing due to inferior quality or other reasons in line with SMC guidelines. The reasons for all such actions shall also be specified.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-21740	B	The operations staff shall have the capability to resume suspended processing of a Data Processing Request.	PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-21750	A	The operations staff shall have the capability of modifying the information associated with the Data Processing Request.	PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-21760	A	The operations staff shall have the capability of viewing the Processing Queues.	PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-21770	A	The operations staff shall have the capability of requesting the status of a Data Processing Request.	PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0410#A	The PGS shall have the capability to track the processing status of all products scheduled to be generated.
			PGS-0380#A	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0410#B	The PGS shall have the capability to track the processing status of all products scheduled to be generated.

			PGS-0380#B	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-21780	A	The operations staff shall have the capability of reporting resource management information.	PGS-0370#A	The PGS shall utilize the LSM to generate a PGS resource utilization report.
			PGS-0370#B	The PGS shall utilize the LSM to generate a PGS resource utilization report.
S-DPS-21790	A	The operations staff shall have the capability of viewing a Data Product.	PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1080#A	The PGS shall have the capability to provide an inventory and review copy of generated products to the data product quality staff before the product is sent to the DADS for storage.
			PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1080#B	The PGS shall have the capability to provide an inventory and review copy of generated products to the data product quality staff before the product is sent to the DADS for storage.
S-DPS-21800	A	The operations staff shall have the capability of viewing the algorithms used to generate a Data Product.	PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.

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S-DPS-21810	A	The operations staff shall have the capability of viewing the ECS Data Products used to generate a Data Product. .	PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
S-DPS-21820	A	The operations staff shall have the capability of viewing the Calibration Coefficient Data used to generate a Data Product.	PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
S-DPS-21830	A	The operations staff shall have the capability of viewing the Ancillary Data Products used to generate a Data Product.	PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.

			PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
S-DPS-21840	A	The operations staff shall have the capability of viewing the Status Information files associated with the generated Data Product.	PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
S-DPS-21850	A	The operations staff shall have the capability of viewing all metadata associated with the generation of a Data Product.	PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.

S-DPS-21855	B	The PRONG CI GUI shall conform to the guidelines in version 5.1 of the ECS User Interface Style Guide.	IMS-1380#B	The IMS shall provide the capability to integrate the element toolkits with a common user interface.
S-DPS-21856	B	To the extent possible, the PRONG CI COTS GUI shall be configured to conform to the guidelines in version 5.1 of the ECS User Interface Style Guide.	IMS-1380#B	The IMS shall provide the capability to integrate the element toolkits with a common user interface.
S-DPS-21860	B	The PRONG CI HMI Functions shall be accessible via an API (Application Program Interface).	PGS-1400#B	The PGS shall be developed with configuration-controlled application programming interfaces (APIs) that will be capable of supporting development and integration of new algorithms developed at each DAAC to support DAAC value-added production.
			EOSD1705#B	ECS shall support interfaces to DAAC Unique components.
S-DPS-21880	A	The PRONG CI shall provide a User Interface to authorized users.	EOSD2400#B	ECS shall provide multiple categories of data protection based on the sensitivity levels of ECS data, as defined in NHB 2410.9.
			EOSD2400#A	ECS shall provide multiple categories of data protection based on the sensitivity levels of ECS data, as defined in NHB 2410.9.
			PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0360#B	The PGS shall generate a PGS processing log that accounts for all data processing activities.
			PGS-0410#B	The PGS shall have the capability to track the processing status of all products scheduled to be generated.
			PGS-0380#B	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0320#B	The PGS shall display detected faults to the system operators.
			PGS-0380#A	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0410#A	The PGS shall have the capability to track the processing status of all products scheduled to be generated.

			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0360#A	The PGS shall generate a PGS processing log that accounts for all data processing activities.
			PGS-0320#A	The PGS shall display detected faults to the system operators.
S-DPS-21890	A	The PRONG CI shall provide a Processing Queue Display as a visual display of the Processing Queues.	PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-21900	A	The PRONG CI shall update the Processing Queue Display information when the Processing State of a queued Data Processing Request is modified.	PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0410#B	The PGS shall have the capability to track the processing status of all products scheduled to be generated.
			PGS-0410#A	The PGS shall have the capability to track the processing status of all products scheduled to be generated.
S-DPS-21910	A	The PRONG CI shall update the Processing Queue Display information with an alert message when a fault has occurred during the queue processing of a Data Processing Request.	PGS-0320#A	The PGS shall display detected faults to the system operators.
			PGS-0410#B	The PGS shall have the capability to track the processing status of all products scheduled to be generated.
			PGS-0320#B	The PGS shall display detected faults to the system operators.
			PGS-0410#A	The PGS shall have the capability to track the processing status of all products scheduled to be generated.

S-DPS-21920	A	The PRONG CI shall update the Processing Queue Display information with an alert message when a fault has occurred during the data staging process.	PGS-0320#A	The PGS shall display detected faults to the system operators.
			PGS-0320#B	The PGS shall display detected faults to the system operators.
			PGS-0410#B	The PGS shall have the capability to track the processing status of all products scheduled to be generated.
			PGS-0410#A	The PGS shall have the capability to track the processing status of all products scheduled to be generated.
S-DPS-21930	A	The PRONG CI shall update the Processing Queue Display information with an alert message when a fault has occurred during the execution of a PGE.	PGS-0320#A	The PGS shall display detected faults to the system operators.
			PGS-0410#A	The PGS shall have the capability to track the processing status of all products scheduled to be generated.
			PGS-0410#B	The PGS shall have the capability to track the processing status of all products scheduled to be generated.
			PGS-0320#B	The PGS shall display detected faults to the system operators.
S-DPS-21940	A	The PRONG CI shall update the Processing Queue Display information with an alert message when a fault has occurred during the data destaging process.	PGS-0320#A	The PGS shall display detected faults to the system operators.
			PGS-0410#B	The PGS shall have the capability to track the processing status of all products scheduled to be generated.
			PGS-0320#B	The PGS shall display detected faults to the system operators.
			PGS-0410#A	The PGS shall have the capability to track the processing status of all products scheduled to be generated.
S-DPS-21950	A	The PRONG CI shall log all alert messages which are used to update the Processing Queue display information.	PGS-0360#A	The PGS shall generate a PGS processing log that accounts for all data processing activities.

			PGS-0360#B	The PGS shall generate a PGS processing log that accounts for all data processing activities.
S-DPS-21960	A	The PRONG CI shall provide a user interface to cancel the processing of a Data Processing Request.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-21970	A	The PRONG CI shall provide a user interface to modify the Priority Information associated with a Data Processing Request.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-21980	A	The PRONG CI shall provide a user interface to modify the information associated with a Data Processing Request.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-21990	A	The PRONG CI shall provide a user interface to suspend the processing of a Data Processing Request.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-22000	A	The PRONG CI shall provide a user interface to resume suspended processing of a Data Processing Request.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-22010	A	The PRONG CI shall provide a user interface to view the data associated with the Data Processing Request.	PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.

			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-22020	A	The PRONG CI shall provide a user interface to support the manual Q/A of Data Products.	PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1120#A	The PGS shall send the DADS updated metadata provided by the data product quality staff relating to product QA review. This QA review metadata shall contain the following information at a minimum. a. Product ID b. QA Approval field c. Other metadata
			PGS-1100#A	The PGS shall have the capability to accept product quality data input.
			PGS-1080#A	The PGS shall have the capability to provide an inventory and review copy of generated products to the data product quality staff before the product is sent to the DADS for storage.
			PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1100#B	The PGS shall have the capability to accept product quality data input.
			PGS-1120#B	The PGS shall send the DADS updated metadata provided by the data product quality staff relating to product QA review. This QA review metadata shall contain the following information at a minimum. a. Product ID b. QA Approval field c. Other metadata

			PGS-1080#B	The PGS shall have the capability to provide an inventory and review copy of generated products to the data product quality staff before the product is sent to the DADS for storage.
S-DPS-22030	A	The PRONG CI shall provide access to data visualization tools to support the manual Q/A of Data Products.	PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1100#B	The PGS shall have the capability to accept product quality data input.
			PGS-1120#B	The PGS shall send the DADS updated metadata provided by the data product quality staff relating to product QA review. This QA review metadata shall contain the following information at a minimum. a. Product ID b. QA Approval field c. Other metadata
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1080#B	The PGS shall have the capability to provide an inventory and review copy of generated products to the data product quality staff before the product is sent to the DADS for storage.
			PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1100#A	The PGS shall have the capability to accept product quality data input.
			PGS-1120#A	The PGS shall send the DADS updated metadata provided by the data product quality staff relating to product QA review. This QA review metadata shall contain the following information at a minimum. a. Product ID b. QA Approval field c. Other metadata
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.

			PGS-1080#A	The PGS shall have the capability to provide an inventory and review copy of generated products to the data product quality staff before the product is sent to the DADS for storage.
S-DPS-22040	A	The PRONG CI shall provide a user interface to support the update of the Q/A metadata of a Data Product.	PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1120#A	The PGS shall send the DADS updated metadata provided by the data product quality staff relating to product QA review. This QA review metadata shall contain the following information at a minimum. a. Product ID b. QA Approval field c. Other metadata
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1100#A	The PGS shall have the capability to accept product quality data input.
			PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1120#B	The PGS shall send the DADS updated metadata provided by the data product quality staff relating to product QA review. This QA review metadata shall contain the following information at a minimum. a. Product ID b. QA Approval field c. Other metadata
			PGS-1100#B	The PGS shall have the capability to accept product quality data input.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
S-DPS-22050	A	The PRONG CI shall provide an interface to support the visual display of a Data Product.	PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.

			PGS-1080#B	The PGS shall have the capability to provide an inventory and review copy of generated products to the data product quality staff before the product is sent to the DADS for storage.
			PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1080#A	The PGS shall have the capability to provide an inventory and review copy of generated products to the data product quality staff before the product is sent to the DADS for storage.
S-DPS-22060	A	The PRONG CI shall provide an interface to support the visual display of the algorithms used to generate a Data Product.	PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
S-DPS-22070	A	The PRONG CI shall provide an interface to support the visual display of the ECS Data Products used to generate a Data Product.	PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.

			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
S-DPS-22080	A	The PRONG CI shall provide an interface to support the visual display of the Calibration Coefficient Data used to generate a Data Product.	PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
S-DPS-22090	A	The PRONG CI shall provide an interface to support the visual display of the Ancillary Data Products used to generate a Data Product.	PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.

S-DPS-22100	A	The PRONG CI shall provide an interface to support the visual display of the Status Information files associated with the generated Data Product.	PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
S-DPS-22110	A	The PRONG CI shall provide an interface to support the visual display of all metadata associated with the generation of a Data Product.	PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1140#B	The PGS shall have the capability to provide the data product quality staff with the Product QA data from the SCF.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1140#A	The PGS shall have the capability to provide the data product quality staff with the Product QA data from the SCF.
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.

S-DPS-22120	A	The PRONG CI shall support a capability to alert the operations staff of a Data Product which is being stored temporarily in the Data Server.	PGS-0590#A	The PGS shall have the capability to indicate the temporary status of data stored in the DADS that is awaiting QA or human interaction in product production.
			PGS-1150#A	The PGS shall have the capability to accept the identification of products that are not to be stored in the DADS due to inferior quality or other reasons. The reason for all such actions shall also be specified.
			PGS-0590#B	The PGS shall have the capability to indicate the temporary status of data stored in the DADS that is awaiting QA or human interaction in product production.
			PGS-1150#B	The PGS shall have the capability to accept the identification of products that are not to be stored in the DADS due to inferior quality or other reasons. The reason for all such actions shall also be specified.
S-DPS-22130	A	The PRONG CI shall support a capability to alert the operations staff of a Data Product which requires quality assurance activities.	PGS-0590#B	The PGS shall have the capability to indicate the temporary status of data stored in the DADS that is awaiting QA or human interaction in product production.
			PGS-1150#B	The PGS shall have the capability to accept the identification of products that are not to be stored in the DADS due to inferior quality or other reasons. The reason for all such actions shall also be specified.
			PGS-0590#A	The PGS shall have the capability to indicate the temporary status of data stored in the DADS that is awaiting QA or human interaction in product production.
			PGS-1150#A	The PGS shall have the capability to accept the identification of products that are not to be stored in the DADS due to inferior quality or other reasons. The reason for all such actions shall also be specified.
S-DPS-22200	A	The PRONG CI shall accept a Processing Information Request to request the status of a Data Processing Request.	PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0325#A	The PGS shall provide the SMC with scheduling and status information.
			PGS-0380#A	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.

			PGS-0325#B	The PGS shall provide the SMC with scheduling and status information.
			PGS-0380#B	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0410#B	The PGS shall have the capability to track the processing status of all products scheduled to be generated.
			PGS-0410#A	The PGS shall have the capability to track the processing status of all products scheduled to be generated.
S-DPS-22210	A	The PRONG CI shall have the capability to provide status for a Data Processing Request.	PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0380#A	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0325#B	The PGS shall provide the SMC with scheduling and status information.
			PGS-0380#B	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0325#A	The PGS shall provide the SMC with scheduling and status information.
S-DPS-22220	A	The PRONG CI shall provide current DPR Processing State data as part of the status information of a Data Processing Request.	PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0380#B	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0325#B	The PGS shall provide the SMC with scheduling and status information.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.

			PGS-0380#A	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0325#A	The PGS shall provide the SMC with scheduling and status information.
S-DPS-22230	A	The PRONG CI shall provide current queue position as part of the status information of a Data Processing Request.	PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0325#A	The PGS shall provide the SMC with scheduling and status information.
			PGS-0380#A	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0380#B	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0325#B	The PGS shall provide the SMC with scheduling and status information.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-22240	A	The PRONG CI shall provide status information for the PGE associated with the Data Processing Request if the PGE is currently executing.	PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0380#B	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0325#B	The PGS shall provide the SMC with scheduling and status information.
			PGS-0325#A	The PGS shall provide the SMC with scheduling and status information.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0380#A	The PGS shall monitor its internal operations and generate a status report periodically and on request.

S-DPS-22250	A	The PRONG CI shall have the capability of receiving the Status Information File of an executing PGE from the Data Processing Subsystem resource executing the PGE.	PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0380#B	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0325#B	The PGS shall provide the SMC with scheduling and status information.
			PGS-0325#A	The PGS shall provide the SMC with scheduling and status information.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0380#A	The PGS shall monitor its internal operations and generate a status report periodically and on request.
S-DPS-22400	A	The PRONG CI shall accept Operations Commands to suspend, resume, or cancel the processing of a Data Processing Request.	PGS-0170#A	The PGS shall receive priority assignments, schedule conflict resolutions, and other operational directives.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0170#B	The PGS shall receive priority assignments, schedule conflict resolutions, and other operational directives from the SMC.
			PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
S-DPS-22410	A	The PRONG CI shall accept an Operations Command to modify a Data Processing Request.	PGS-0170#A	The PGS shall receive priority assignments, schedule conflict resolutions, and other operational directives.

			PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0170#B	The PGS shall receive priority assignments, schedule conflict resolutions, and other operational directives from the SMC.
			PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-22470	A	The PRONG CI shall update the DPR Processing State to cancel when the Operation Command specifies cancellation.	PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-22480	A	The PRONG CI shall terminate data staging if in progress when the Data Processing Request is canceled.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-22490	A	The PRONG CI shall deallocate the memory which was allocated to the executing PGE associated with the canceled Data Processing Request.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS

			PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-22500	A	The PRONG CI shall deallocate the disk storage which was allocated to the executing PGE associated with the canceled Data Processing Request.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-22510	A	The PRONG CI shall deallocate the CPU which was allocated to the executing PGE associated with the canceled Data Processing Request.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-22520	A	The PRONG CI shall terminate the execution of the PGE if in progress when the Data Processing Request is canceled.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS

			PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-22530	A	The PRONG CI shall terminate data destaging if in progress when the Data Processing is canceled.	PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-22540	A	The PRONG CI shall send a Complete Notification Status message to the source of the Data Processing Request when the Data Processing Request is canceled.	PGS-0380#A	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0380#B	The PGS shall monitor its internal operations and generate a status report periodically and on request.
S-DPS-22560	B	The PRONG CI shall update the Processing State to suspend when the Operation Command specifies suspension.	PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-22590	B	The PRONG CI shall not perform any further processing on a Data Processing Request which is suspended.	PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-22600	B	The PRONG CI shall reject the Operation Command which specified a resume if the Data Processing Request was not suspended.	PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.

S-DPS-22611	B	When the resume Operation Command is used to resume processing for a Data Processing Request, the PRONG CI shall update the Processing State to the previous Processing State before the suspension.	PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-22620	A	The PRONG CI shall update the Priority Information associated with the Data Processing Request with the Priority Information contained in the Operation Command which specifies modify.	PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-22630	A	The PRONG CI shall perform queue processing for a Data Processing Request which has updated Priority Information.	PGS-0300#A	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
			PGS-0300#B	The PGS shall have the capability for an operator to interactively review and update the current data processing schedule.
S-DPS-30300	B	The PRONG CI shall process the EOS-AM spacecraft ancillary data to assess the quality of onboard orbit data to detect and note in metadata the following conditions: a. missing data b. erroneous data (i.e. if distance from origin deviates greatly from a neighboring set of points or if magnitude of velocity deviates greatly from the neighboring set of velocities) excluding data that reflects orbit adjust maneuvers	PGS-0455#B	The PGS shall have the capability to assess the quality of spacecraft orbit and attitude (O/A) data contained in the ancillary data. QA shall be in the form of limits checking.
			PGS-0458#B	The PGS shall use configuration-controlled calibration coefficients and selected engineering data to generate calibrated ancillary data products necessary as input to the generation of Level 1 Standard Products in a timeframe that assures that production schedules for all products can be met.
			PGS-1100#B	The PGS shall have the capability to accept product quality data input.

S-DPS-30320	B	The PRONG CI shall report on the quality of onboard orbit data, noting: a) the number of missing data are more than a specified limit value over a specified time interval b) the number of contiguous missing data are more than a specified value	PGS-1100#B	The PGS shall have the capability to accept product quality data input.
			PGS-0456#B	The PGS shall notify the FDF, via the DADS, of O/A quality checks and request updated (refined/repaired) O/A data from the FDF when necessary.
S-DPS-30600	B	The PRONG CI shall process the EOS-AM spacecraft ancillary data to assess the quality of onboard attitude data contained in the EOS-AM spacecraft ancillary data to detect and note in metadata the folloowing conditions: a) missing data b) erroneous data (i.e. invalid Euler angle, invalid Euler angle rate).	PGS-0455#B	The PGS shall have the capability to assess the quality of spacecraft orbit and attitude (O/A) data contained in the ancillary data. QA shall be in the form of limits checking.
			PGS-1100#B	The PGS shall have the capability to accept product quality data input.
S-DPS-30610	A	The PRONG CI shall process the TRMM spacecraft ancillary data to assess the quality of onboard attitude data to detect and note in metadata the following conditions: a. missing data b. erroneous data (i.e. invalid Euler angle, invalid Euler angle rate)	PGS-0455#A	The PGS shall have the capability to assess the quality of spacecraft orbit and attitude (O/A) data contained in the ancillary data. QA shall be in the form of limits checking.
			PGS-1100#A	The PGS shall have the capability to accept product quality data input.
			PGS-1100#B	The PGS shall have the capability to accept product quality data input.
S-DPS-30700	A	The PRONG CI shall provide to the SDP Toolkit, at a minimum, the following metadata with the ephemeris data files for TRMM processing: a. Time range b. Orbit number range c. Platform	PGS-1015#B	The PGS shall provide ancillary data access subroutines that provide Standard Product software access to ephemeris data (e.g., solar, lunar, and satellite ephemeris), Earth rotation data, and time and position measurement data. These subroutines shall perform operations such as: a. Interpolation b. Extrapolation c. Coordinate system conversion

			PGS-0500#A	The PGS shall have the capability to generate Level 1 through 4 Standard Products using validated algorithms and calibration coefficients provided by the scientists.
			PGS-1015#A	The PGS shall provide ancillary data access subroutines that provide Standard Product software access to ephemeris data (e.g., solar, lunar, and satellite ephemeris), Earth rotation data, and time and position measurement data. These subroutines shall perform operations such as: a. Interpolation b. Extrapolation c. Coordinate system conversion
			PGS-0500#B	The PGS shall have the capability to generate Level 1 through 4 Standard Products using validated algorithms and calibration coefficients provided by the scientists.
S-DPS-30710	B	The PRONG CI shall provide to the SDP Toolkit, at a minimum, the following metadata with the ephemeris data files for EOS-AM processing: a) time range b) orbit number range c) platform	PGS-0500#B	The PGS shall have the capability to generate Level 1 through 4 Standard Products using validated algorithms and calibration coefficients provided by the scientists.
			PGS-1015#B	The PGS shall provide ancillary data access subroutines that provide Standard Product software access to ephemeris data (e.g., solar, lunar, and satellite ephemeris), Earth rotation data, and time and position measurement data. These subroutines shall perform operations such as: a. Interpolation b. Extrapolation c. Coordinate system conversion
S-DPS-30740	A	The PRONG CI shall provide to the SDP Toolkit orbit and attitude data, including platform position and velocity vectors and platform attitude/attitude rate data, in the native format of the host hardware for TRMM processing.	DADS0770#A	The DADS shall reformat data sets in one of the approved standard formats including HDF.
			DADS0800#A	Each DADS shall provide the capability to translate input data to the internal ECS format including HDF.
			DADS0780#A	Each DADS shall have the capability to incorporate additional ingest and data distribution formats and conversion software.

			DADS0770#B	The DADS shall reformat data sets in one of the approved standard formats including HDF.
			DADS0780#B	Each DADS shall have the capability to incorporate additional ingest and data distribution formats and conversion software.
			DADS0800#B	Each DADS shall provide the capability to translate input data to the internal ECS format including HDF.
S-DPS-30750	B	The PRONG CI shall provide to the SDP Toolkit orbit and attitude data including platform position and velocity vectors and platform attitude/attitude rate data, in the native format of the host hardware for EOS-AM processing.	DADS0770#B	The DADS shall reformat data sets in one of the approved standard formats including HDF.
			DADS0780#B	Each DADS shall have the capability to incorporate additional ingest and data distribution formats and conversion software.
			DADS0800#B	Each DADS shall provide the capability to translate input data to the internal ECS format including HDF.
S-DPS-30760	A	The PRONG CI shall provide to the SDP Toolkit orbit and attitude data, including platform position and velocity vectors and platform attitude/attitude rate data, in HDF-EOS format for TRMM processing.	DADS0770#B	The DADS shall reformat data sets in one of the approved standard formats including HDF.
			DADS0800#B	Each DADS shall provide the capability to translate input data to the internal ECS format including HDF.
			DADS0780#B	Each DADS shall have the capability to incorporate additional ingest and data distribution formats and conversion software.
			DADS0770#A	The DADS shall reformat data sets in one of the approved standard formats including HDF.
			DADS0780#A	Each DADS shall have the capability to incorporate additional ingest and data distribution formats and conversion software.
			DADS0800#A	Each DADS shall provide the capability to translate input data to the internal ECS format including HDF.

S-DPS-30770	B	The PRONG CI shall provide to the SDP Toolkit orbit and attitude data, including platform position and velocity vectors and platform attitude/attitude rate data, in HDF-EOS format for EOS-AM processing.	DADS0770#B	The DADS shall reformat data sets in one of the approved standard formats including HDF.
			DADS0800#B	Each DADS shall provide the capability to translate input data to the internal ECS format including HDF.
			DADS0780#B	Each DADS shall have the capability to incorporate additional ingest and data distribution formats and conversion software.
S-DPS-30900	B	The PRONG CI shall provide to the SDP Toolkit EDOS-generated L0 PDS as header and quality parameters all contained in the same physical file as the L0 telemetry packets.	DADS0140#B	Each DADS shall receive from other DAACs, at a minimum, the following for the purpose of product generation: a. L0-L4 b. Metadata c. Ancillary data d. Calibration data e. Correlative data f. Documents g. Algorithms
			SDPS0020#B	The SDPS shall receive EOS science, engineering, ancillary and expedited data from the EDOS, the SDPF, and the IPs, and non-EOS data, in situ data, associated algorithms, documentation, correlative data, and ancillary data (as listed in Appendix C) from ADCs, EPDSs, and ODCs.
S-DPS-30910	B	The PRONG CI shall provide to the SDP Toolkit EDOS-generated L0 PDS containing header information as specified in the EDOS-ECS ICD.	EDOS-4.2.2#B	The DPF shall interface with the LaRC DAAC to transfer PDSs, QDSs, Archive Data Sets (ADSs), and Mission Test Data Sets.
			EDOS-B.4.2#B	The DPF shall provide the capability to transfer any PDS to the LaRC DAAC.
			EDOS-4.2.3#B	The DPF shall interface with the GSFC DAAC to transfer PDSs, QDSs, ADSs, and Mission Test Data Sets.
			SDPS0020#B	The SDPS shall receive EOS science, engineering, ancillary and expedited data from the EDOS, the SDPF, and the IPs, and non-EOS data, in situ data, associated algorithms, documentation, correlative data, and ancillary data (as listed in Appendix C) from ADCs, EPDSs, and ODCs.

			EDOS-C.4.3#B	The DPF shall provide the capability to copy PDSs to removable physical media for backup to electronic delivery.
			EDOS-C.4.2#B	The DPF shall provide the capability to transfer PDS to the GSFC DAAC.
			DADS0140#B	Each DADS shall receive from other DAACs, at a minimum, the following for the purpose of product generation: a. L0-L4 b. Metadata c. Ancillary data d. Calibration data e. Correlative data f. Documents g. Algorithms
S-DPS-30920	B	The PRONG CI shall provide to the SDP Toolkit EDOS-generated L0 PDS containing quality information as specified in the EDOS-ECS ICD.	DADS0140#B	Each DADS shall receive from other DAACs, at a minimum, the following for the purpose of product generation: a. L0-L4 b. Metadata c. Ancillary data d. Calibration data e. Correlative data f. Documents g. Algorithms
			SDPS0020#B	The SDPS shall receive EOS science, engineering, ancillary and expedited data from the EDOS, the SDPF, and the IPs, and non-EOS data, in situ data, associated algorithms, documentation, correlative data, and ancillary data (as listed in Appendix C) from ADCs, EPDSs, and ODCs.
S-DPS-31010	B	The PRONG CI shall provide to the SDP Toolkit EDOS-generated L0 header in the native format of the host hardware.	DADS0770#B	The DADS shall reformat data sets in one of the approved standard formats including HDF.
			DADS0780#B	Each DADS shall have the capability to incorporate additional ingest and data distribution formats and conversion software.
			DADS0800#B	Each DADS shall provide the capability to translate input data to the internal ECS format including HDF.

Data Processing Subsystem L4 to RbR traceability

S-DPS-31020	A	The PRONG CI shall provide, at a minimum, the following metadata information to the SDP Toolkit with SDPF-generated L0 data a. Actual start time of staged L0 data b. Actual end time of staged L0 data c. Number of physical L0 data files staged d. Start time of L0 data as requested by EOS investigators through the planning/processing system e. End time of L0 data as requested by EOS investigators through the planning/processing system f. APID of each L0 data file g. Orbit number or orbit number range of the staged L0 data file	PGS-0520#A	The PGS shall have the capability to generate data products from any single data input or combination of data inputs according to the algorithms provided by the scientists.
			PGS-0520#B	The PGS shall have the capability to generate data products from any single data input or combination of data inputs according to the algorithms provided by the scientists.
S-DPS-31030	B	The PRONG CI shall provide, at a minimum, the following metadata information to the SDP Toolkit with EDOS-generated L0 data: a. Actual start time of staged L0 data b. Actual end time of staged L0 data c. Number of physical L0 data files staged d. Start time of L0 data as requested by EOS investigators through the planning/processing system e. End time of L0 data as requested by EOS investigators through the planning/processing system f. APID of each L0 data file g. Orbit number or orbit number range of the staged L0 data file	PGS-0520#B	The PGS shall have the capability to generate data products from any single data input or combination of data inputs according to the algorithms provided by the scientists.

S-DPS-31620	A	The PRONG CI shall be able to stage the following GFE static data sets required for PGE execution for access by the SDP Toolkit: a. Digital terrain map data sets b. Land/Sea data sets c. Digital political map data sets	PGS-0490#A	The PGS shall have the capability to access and use, for the generation of Standard Products, information such as: a. Digital terrain map databases b. Land/sea databases c. Climatology databases d. Digital political map databases
			PGS-1220#A	The PGS shall have the capability to receive GFE databases and associated tools, including COTS and public domain databases, and maintain them as required as inputs to product generation: Example databases are: a. Digital terrain map databases b. Land/sea databases c. Climatology databases d. Digital political map databases
			PGS-0490#B	The PGS shall have the capability to access and use, for the generation of Standard Products, information such as: a. Digital terrain map databases b. Land/sea databases c. Climatology databases d. Digital political map databases
			PGS-1220#B	The PGS shall have the capability to receive GFE databases and associated tools, including COTS and public domain databases, and maintain them as required as inputs to product generation: Example databases are: a. Digital terrain map databases b. Land/sea databases c. Climatology databases d. Digital political map databases
S-DPS-31700	A	The PRONG CI shall extract metadata attributes for external Ancillary Data sets, in addition to metadata extraction by the INGST CI.	DADS0145#A	Each DADS shall be capable of receiving from the ADCs, at a minimum, the following for the purpose of product generation: a. L0-L4 equivalent data sets b. Metadata c. Ancillary data d. Calibration data e. Correlative data f. Documents g. Algorithms

			PGS-0450#A	The PGS shall accept from the DADS ancillary data sets. Received information shall contain at a minimum: a. Product identification b. Ancillary data set c. Metadata required for processing d. Current date and time e. DADS identification
			PGS-0450#B	The PGS shall accept from the DADS ancillary data sets. Received information shall contain at a minimum: a. Product identification b. Ancillary data set c. Metadata required for processing d. Current date and time e. DADS identification
			DADS0145#B	Each DADS shall be capable of receiving from the ADCs, at a minimum, the following for the purpose of product generation: a. L0-L4 equivalent data sets b. Metadata c. Ancillary data d. Calibration data e. Correlative data f. Documents g. Algorithms
S-DPS-40010	IR1	The AITTL CI shall have the capability to receive a Science Software Delivery from the SCF electronically via the network.	DADS0190#Ir1	Each DADS shall receive from the SCF, at a minimum, the following: g. Algorithms
			DADS0190#B	Each DADS shall receive from the SCF, at a minimum, the following: a. Special products (L1-L4) b. Metadata c. Ancillary data d. Calibration data e. Correlative data f. Documents g. Algorithms

			EOSD1750#Ir1	ECS elements shall receive data including the following types of supporting information from the ECS science community (TLs, TMs, PIs, and Co-Is): a. Algorithms b. Software fixes d. Integration support requests
			SDPS0090#A	The SDPS shall interface with the PIs and the other science users to support the development and testing of data product algorithms and QA of produced data products.
			PGS-0610#A	The PGS shall accept from the SCFs new or modified calibration coefficients to be validated in the test environment. Calibration coefficients shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Date and time g. SCF identification h. Reasons for update
			PGS-0640#A	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum : a. Algorithm identification b. Algorithm source code c. List of required inputs d. Processing dependencies e. Test data and procedures f. Algorithm documentation
			EOSD0730#A	Each ECS element shall be capable of verifying the fidelity of the ECS element interface to: a. Other ECS elements at any time during the lifetime of the ECS b. Entities external to ECS at any time during the lifetime of the ECS

			EOSD1750#A	ECS elements shall receive data including the following types of supporting information from the ECS science community (TLs, TMs, PIs, and Co-Is): a. Algorithms b. Software fixes c. Instrument calibration data d. Integration support requests e. Metadata for Special Products archiving f. Data transfer requests (inventories, directories, and browse) g. Data Quality/Instrument assessment h. Instrument operations information i. Ancillary data
			PGS-0610#B	The PGS shall accept from the SCFs new or modified calibration coefficients to be validated in the test environment. Calibration coefficients shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Date and time g. SCF identification h. Reasons for update
			PGS-0640#B	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum : a. Algorithm identification b. Algorithm source code c. List of required inputs d. Processing dependencies e. Test data and procedures f. Algorithm documentation
			EOSD0730#B	Each ECS element shall be capable of verifying the fidelity of the ECS element interface to: a. Other ECS elements at any time during the lifetime of the ECS b. Entities external to ECS at any time during the lifetime of the ECS

			DADS0190#A	Each DADS shall receive from the SCF, at a minimum, the following: a. Special products (L1-L4) b. Metadata c. Ancillary data d. Calibration data e. Correlative data f. Documents g. Algorithms
			EOSD1750#B	ECS elements shall receive data including the following types of supporting information from the ECS science community (TLs, TMs, PIs, and Co-Is): a. Algorithms b. Software fixes c. Instrument calibration data d. Integration support requests e. Metadata for Special Products archiving f. Data transfer requests (inventories, directories, and browse) g. Data Quality/Instrument assessment h. Instrument operations information i. Ancillary data
			EOSD0730#Ir1	Each ECS element shall be capable of verifying the fidelity of the ECS element interface to: b. Entities external to ECS at any time during the lifetime of the ECS
			PGS-0610#Ir1	The PGS shall accept from the SCFs new or modified calibration coefficients to be validated in the test environment. Calibration coefficients shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Date and time g. SCF identification h. Reasons for update
			SCF-0120#Ir1	The ECS shall have the capability to receive Data Production Software Updates from the SCF. These Data Production Software Updates include modifications to any data production software already submitted to the ECS by the SCF. The Data Production Software Updates may include some or all the items required in the Data Production Software Delivery Package.

			SCF-0120#B	The ECS shall have the capability to receive Data Production Software Updates from the SCF. These Data Production Software Updates include modifications to any data production software already submitted to the ECS by the SCF. The Data Production Software Updates may include some or all the items required in the Data Production Software Delivery Package.
			SCF-0120#A	The ECS shall have the capability to receive Data Production Software Updates from the SCF. These Data Production Software Updates include modifications to any data production software already submitted to the ECS by the SCF. The Data Production Software Updates may include some or all the items required in the Data Production Software Delivery Package.
			PGS-0640#Ir1	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum : a. Algorithm identification b. Algorithm source code c. List of required inputs d. Processing dependencies e. Test data and procedures f. Algorithm documentation
S-DPS-40020	A	The AITTL CI shall have the capability to receive a Science Software Delivery from the Science Data Server.	EOSD1750#B	ECS elements shall receive data including the following types of supporting information from the ECS science community (TLs, TMs, PIs, and Co-Is): a. Algorithms b. Software fixes c. Instrument calibration data d. Integration support requests e. Metadata for Special Products archiving f. Data transfer requests (inventories, directories, and browse) g. Data Quality/Instrument assessment h. Instrument operations information i. Ancillary data

			PGS-0610#B	The PGS shall accept from the SCFs new or modified calibration coefficients to be validated in the test environment. Calibration coefficients shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Date and time g. SCF identification h. Reasons for update
			PGS-0640#B	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum : a. Algorithm identification b. Algorithm source code c. List of required inputs d. Processing dependencies e. Test data and procedures f. Algorithm documentation
			PGS-0610#A	The PGS shall accept from the SCFs new or modified calibration coefficients to be validated in the test environment. Calibration coefficients shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Date and time g. SCF identification h. Reasons for update
			PGS-0640#A	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum : a. Algorithm identification b. Algorithm source code c. List of required inputs d. Processing dependencies e. Test data and procedures f. Algorithm documentation

			EOSD1750#A	ECS elements shall receive data including the following types of supporting information from the ECS science community (TLs, TMs, PIs, and Co-Is): a. Algorithms b. Software fixes c. Instrument calibration data d. Integration support requests e. Metadata for Special Products archiving f. Data transfer requests (inventories, directories, and browse) g. Data Quality/Instrument assessment h. Instrument operations information i. Ancillary data
S-DPS-40030	A	The AITTL CI shall provide the operations staff with the capability to register a Subscription with the Data Server to be notified when a new Science Software Delivery is received.	PGS-0610#A	The PGS shall accept from the SCFs new or modified calibration coefficients to be validated in the test environment. Calibration coefficients shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Date and time g. SCF identification h. Reasons for update
			EOSD1750#A	ECS elements shall receive data including the following types of supporting information from the ECS science community (TLs, TMs, PIs, and Co-Is): a. Algorithms b. Software fixes c. Instrument calibration data d. Integration support requests e. Metadata for Special Products archiving f. Data transfer requests (inventories, directories, and browse) g. Data Quality/Instrument assessment h. Instrument operations information i. Ancillary data

			PGS-0640#A	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum: a. Algorithm identification b. Algorithm source code c. List of required inputs d. Processing dependencies e. Test data and procedures f. Algorithm documentation
			PGS-0610#B	The PGS shall accept from the SCFs new or modified calibration coefficients to be validated in the test environment. Calibration coefficients shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Date and time g. SCF identification h. Reasons for update
			PGS-0640#B	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum : a. Algorithm identification b. Algorithm source code c. List of required inputs d. Processing dependencies e. Test data and procedures f. Algorithm documentation
			EOSD1750#B	ECS elements shall receive data including the following types of supporting information from the ECS science community (TLs, TMs, PIs, and Co-Is): a. Algorithms b. Software fixes c. Instrument calibration data d. Integration support requests e. Metadata for Special Products archiving f. Data transfer requests (inventories, directories, and browse) g. Data Quality/Instrument assessment h. Instrument operations information i. Ancillary data

S-DPS-40040	A	The AITTL CI shall provide the operations staff with the capability to request transfer of the Science Software Delivery files from the Data Server to the local I&T area.	EOSD1750#B	ECS elements shall receive data including the following types of supporting information from the ECS science community (TLs, TMs, PIs, and Co-Is): a. Algorithms b. Software fixes c. Instrument calibration data d. Integration support requests e. Metadata for Special Products archiving f. Data transfer requests (inventories, directories, and browse) g. Data Quality/Instrument assessment h. Instrument operations information i. Ancillary data
			PGS-0610#B	The PGS shall accept from the SCFs new or modified calibration coefficients to be validated in the test environment. Calibration coefficients shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Date and time g. SCF identification h. Reasons for update
			PGS-0640#B	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum : a. Algorithm identification b. Algorithm source code c. List of required inputs d. Processing dependencies e. Test data and procedures f. Algorithm documentation

			PGS-0610#A	The PGS shall accept from the SCFs new or modified calibration coefficients to be validated in the test environment. Calibration coefficients shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Date and time g. SCF identification h. Reasons for update
			PGS-0640#A	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum : a. Algorithm identification b. Algorithm source code c. List of required inputs d. Processing dependencies e. Test data and procedures f. Algorithm documentation
			EOSD1750#A	ECS elements shall receive data including the following types of supporting information from the ECS science community (TLs, TMs, PIs, and Co-Is): a. Algorithms b. Software fixes c. Instrument calibration data d. Integration support requests e. Metadata for Special Products archiving f. Data transfer requests (inventories, directories, and browse) g. Data Quality/Instrument assessment h. Instrument operations information i. Ancillary data

S-DPS-40100	IR1	The AITTL CI shall provide the operations staff with the capability to display Science Software documentation stored in any of the following formats: a) PostScript, b) ASCII, c) Hypertext Markup Language (HTML), d) Microsoft Word, e) WordPerfect, f) Adobe Acrobat Portable Document Format (PDF).	PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-40110	IR1	The AITTL CI shall provide the operations staff with the capability to print Science Software documentation stored in any of the following formats: a) PostScript, b) ASCII, c) Hypertext Markup Language (HTML), d) Microsoft Word, e) WordPerfect, f) Adobe Acrobat Portable Document Format (PDF).	PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs

			PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-40200	IR1	The AITTL CI shall have the capability to verify that Science Software source code written in C complies with the ANSI standard specification for C.	PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

S-DPS-40210	IR1	The AITTL CI shall have the capability to verify that Science Software source code written in FORTRAN77 complies with the ANSI standard specification for FORTRAN77.	PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs

			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-40230	IR1	The AITTL CI shall have the capability to verify that Science Software source code written in FORTRAN 90 complies with the ANSI standard specification for FORTRAN 90.	PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-40250	IR1	The AITTL CI shall have the capability to verify that Science Software source code written in Ada complies with the military specification MIL-STD-1815-A.	PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-40260	IR1	The AITTL CI shall have the capability to verify that Science Software source code is POSIX-compliant.	PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs

			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-40280	IR1	The AITTL CI shall have the capability to verify that Science Software source code and Science Software scripts follow the following SDP Toolkit usage requirements (from 194-809-SD4-001, PGS Toolkit Users Guide for the ECS Project): a. Source code does not make any prohibited POSIX function calls b. The Status Message Text Files have the correct format	PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs

S-DPS-40295	IR1	The AITTL CI shall provide standards checking capabilities, including, but not limited to: a. Flagging whenever a bit operation is used on signed numbers. (C only) b. Flagging argument list mismatches (type and number of arguments).	PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-40320	IR1	The AITTL CI shall have the capability to verify that Science Software source code includes headers as specified in 423-16-01, Data Production Software and Science Computing Facility (SCF) Standards and Guidelines.	PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs

S-DPS-40340	IR1	The AITTL CI shall have the capability to generate report files describing the results of standards checking.	PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-40400	IR1	The AITTL CI shall have the capability to determine if the Science Software contains memory leaks.	PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-40405	IR1	The AITTL CI shall have the capability to determine if the Science Software contains out of bounds indexing.	PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-40430	IR1	The AITTL CI shall have the capability to generate report files describing the results of code analysis.	PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-40700	A	The data visualization capability of the AITTL CI shall include the capability to display data in hexadecimal, octal, decimal, or ASCII form.	PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-40710	A	The data visualization capability of the AITTL CI shall include the capability to display data as a two- or three-dimensional image.	PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-40720	A	The data visualization capability of the AITTL CI shall include the capability to display data as a two- or three-dimensional plot.	PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.

			PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-40730	A	The data visualization capability of the AITTL CI shall include the capability to difference data and to display the differences as a two- or three-dimensional image or plot.	PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-40740	A	The data visualization capability of the AITTL CI shall include the capability to produce and play a "movie loop" of data in two- or three-dimensional image or plot form.	PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-40750	A	The data visualization capability of the AITTL CI shall include the capability to display an arbitrary two-dimensional slice of a three-dimensional image or plot.	PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.

S-DPS-40760	A	The data visualization capability of the AITTL CI shall include the capability to rotate a three-dimensional image or plot about an arbitrary axis.	PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-40770	A	The data visualization capability of the AITTL CI shall include providing the user with the option to specify the color table for new or existing image displays.	PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-40780	A	The data visualization capability of the AITTL CI shall include providing the user with the option to specify the axis limits for new or existing plot displays.	PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-40790	A	The data visualization capability of the AITTL CI shall include providing the operations staff with the option to specify the parameter assigned to each axis in new or existing plot or image displays.	PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.

			PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-40800	A	The data visualization capability of the AITTL CI shall include the capability to display simultaneously multiple views of the same or different data in different windows.	PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-40810	A	The data visualization capability of the AITTL CI shall include the capability to save any plot, image, or hex/decimal/octal/ASCII dump to a file.	PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-40820	A	The data visualization capability of the AITTL CI shall include feature enhancement capabilities, including but not limited to (1) histogram equalization and (2) edge enhancement.	PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.

S-DPS-40830	A	The data visualization capability of the AITTL CI shall include the capability to read ASCII, binary, or HDF files.	PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-40835	B	The AITTL CI shall conform to the guidelines in version 5.1 of the ECS User Interface Style Guide.	IMS-1380#B	The IMS shall provide the capability to integrate the element toolkits with a common user interface.
S-DPS-40840	A	The data visualization capability of the AITTL CI shall include the capability to allow the operations staff to specify a custom input data format.	PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-40900	IR1	The AITTL CI shall have the capability to find all differences between two data files which are greater than some specified absolute threshold.	PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.

			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#Ir1	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-40910	IR1	The AITTL CI shall have the capability to find all differences between two data files which are greater than some specified relative threshold.	PGS-0620#Ir1	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs

			PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-40920	IR1	The AITTL CI shall have the capability to generate report files describing the results of file comparisons.	PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.

			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0620#Ir1	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-40930	IR1	The file comparison capability of the AITTL CI shall include the capability to read ASCII, binary, or HDF files.	PGS-0620#Ir1	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs

			PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-40940	IR1	The file comparison capability of the AITTL CI shall include the capability to allow the operations staff to specify a custom data format.	PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.

			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0620#Ir1	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-41000	IR1	The AITTL CI shall have the capability to measure the CPU time of a process.	PGS-0400#Ir1	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0400#A	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0400#B	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
S-DPS-41005	IR1	The AITTL CI shall have the capability to measure the wall clock time of a process.	PGS-0400#A	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0400#B	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0400#Ir1	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-41010	IR1	The AITTL CI shall have the capability to measure the CPU time of each procedure within a process.	PGS-0400#Ir1	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs

			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0400#A	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0400#B	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-41015	IR1	The AITTL CI shall have the capability to measure the wall clock time of each procedure within a process.	PGS-0400#A	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0400#B	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0400#Ir1	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.

			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-41020	IR1	The AITTL CI shall have the capability to measure the memory usage of a process.	PGS-0400#Ir1	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0400#A	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.

			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0400#B	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
S-DPS-41030	IR1	The AITTL CI shall have the capability to measure the disk space usage of a process.	PGS-0400#A	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0400#B	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0400#Ir1	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.

			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-41035	IR1	The AITTL CI shall have the capability to count the number of page faults for a process.	PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0400#A	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0400#B	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-41040	IR1	The AITTL CI shall have the capability to count the number of I/O accesses made by a process to each of its input and output data files.	PGS-0400#A	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0400#B	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0400#Ir1	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.

			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-41050	IR1	The AITTL CI shall have the capability to generate report files discussing the results of profiling activities.	PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs

			PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-41100	B	The AITTL CI shall provide to the operations staff, via a GUI, the capability to display a list of Science Software Archive Packages in the Data Server.	PGS-0630#B	The PGS shall send the DADS new or modified calibration coefficients which shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Documentation
			PGS-0960#B	The PGS shall send the DADS new or modified algorithms. This delivery shall contain the following information at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data and results c. Date and time of operational installation d. Final algorithm documentation e. Calibration coefficient values
S-DPS-41110	B	The AITTL CI shall provide to the operations staff, via a GUI, the capability to display the metadata for a specific Science Software Archive Package.	PGS-0630#B	The PGS shall send the DADS new or modified calibration coefficients which shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Documentation

			PGS-0960#B	The PGS shall send the DADS new or modified algorithms. This delivery shall contain the following information at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data and results c. Date and time of operational installation d. Final algorithm documentation e. Calibration coefficient values
S-DPS-41120	B	The AITTL CI shall provide to the operations staff, via a GUI, the capability to display a list of the files that comprise a specific Science Software Archive Package.	PGS-0630#B	The PGS shall send the DADS new or modified calibration coefficients which shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Documentation
			PGS-0960#B	The PGS shall send the DADS new or modified algorithms. This delivery shall contain the following information at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data and results c. Date and time of operational installation d. Final algorithm documentation e. Calibration coefficient values
S-DPS-41130	B	The AITTL CI shall provide to the operations staff, via a GUI, the capability to retrieve a copy of a specified file belonging to a specific Science Software Archive Package.	PGS-0630#B	The PGS shall send the DADS new or modified calibration coefficients which shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Documentation
			PGS-0960#B	The PGS shall send the DADS new or modified algorithms. This delivery shall contain the following information at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data and results c. Date and time of operational installation d. Final algorithm documentation e. Calibration coefficient values

S-DPS-41140	B	The AITTL CI shall provide to the operations staff, via a GUI, the capability to add a new Science Software Archive Package to the Data Server.	PGS-0630#B	The PGS shall send the DADS new or modified calibration coefficients which shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Documentation
			PGS-0960#B	The PGS shall send the DADS new or modified algorithms. This delivery shall contain the following information at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data and results c. Date and time of operational installation d. Final algorithm documentation e. Calibration coefficient values
S-DPS-41150	B	The AITTL CI shall provide to the operations staff, via a GUI, the capability to add or remove a file to or from the set of files comprising a specific Science Software Archive Package.	PGS-0630#B	The PGS shall send the DADS new or modified calibration coefficients which shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Documentation
			PGS-0960#B	The PGS shall send the DADS new or modified algorithms. This delivery shall contain the following information at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data and results c. Date and time of operational installation d. Final algorithm documentation e. Calibration coefficient values
S-DPS-41160	B	The AITTL CI shall provide to the operations staff, via a GUI, the capability to edit the metadata for a specific Science Software Archive Package.	PGS-0630#B	The PGS shall send the DADS new or modified calibration coefficients which shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Documentation

			PGS-0960#B	The PGS shall send the DADS new or modified algorithms. This delivery shall contain the following information at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data and results c. Date and time of operational installation d. Final algorithm documentation e. Calibration coefficient values
S-DPS-41170	B	The AITTL CI shall provide to the operations staff, via a GUI, the capability to remove a specific Science Software Archive Package from the Data Server.	PGS-0630#B	The PGS shall send the DADS new or modified calibration coefficients which shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Documentation
			PGS-0960#B	The PGS shall send the DADS new or modified algorithms. This delivery shall contain the following information at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data and results c. Date and time of operational installation d. Final algorithm documentation e. Calibration coefficient values
S-DPS-41180	B	The AITTL CI shall provide to the operations staff, via a GUI, the capability to define new data types for new Products produced by an Science Software Archive Package.	PGS-0630#B	The PGS shall send the DADS new or modified calibration coefficients which shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Documentation
			PGS-0960#B	The PGS shall send the DADS new or modified algorithms. This delivery shall contain the following information at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data and results c. Date and time of operational installation d. Final algorithm documentation e. Calibration coefficient values

S-DPS-41190	B	The AITTL CI SSAP GUI for adding an Science Software Archive Package to the Data Server shall have the capability of accepting its inputs from a file.	PGS-0630#B	The PGS shall send the DADS new or modified calibration coefficients which shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Documentation
			PGS-0960#B	The PGS shall send the DADS new or modified algorithms. This delivery shall contain the following information at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data and results c. Date and time of operational installation d. Final algorithm documentation e. Calibration coefficient values
S-DPS-41200	B	The AITTL CI SSAP GUI for adding an Science Software Archive Package to the Data Server shall provide the operations staff with the ability (a) to restrict update access to the Data Server to authorized personnel and (b) to maintain a record of updates made.	PGS-0630#B	The PGS shall send the DADS new or modified calibration coefficients which shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Documentation
			PGS-0960#B	The PGS shall send the DADS new or modified algorithms. This delivery shall contain the following information at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data and results c. Date and time of operational installation d. Final algorithm documentation e. Calibration coefficient values
			EOSD2400#B	ECS shall provide multiple categories of data protection based on the sensitivity levels of ECS data, as defined in NHB 2410.9.
S-DPS-41300	A	The AITTL CI shall provide to the operations staff, via a GUI, the capability to display a list of PGE Database Entries.	PGS-0930#B	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.

			PGS-0930#A	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.
S-DPS-41310	A	The AITTL CI shall provide to the operations staff, via a GUI, the capability to display a specific PGE Database Entry.	PGS-0930#A	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.
			PGS-0930#B	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.
S-DPS-41320	A	The AITTL CI shall provide to the operations staff, via a GUI, the capability to modify a specific PGE Database Entry.	PGS-0930#B	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.
			PGS-0930#A	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.
S-DPS-41330	A	The AITTL CI shall provide to the operations staff, via a GUI, the capability to add a new PGE Database Entry.	PGS-0930#A	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.
			PGS-0930#B	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.
S-DPS-41340	A	The AITTL CI shall provide to the operations staff, via a GUI, the capability to remove a specific PGE Database Entry.	PGS-0930#B	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.
			PGS-0930#A	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.
S-DPS-41350	A	The AITTL CI shall provide to the operations staff, via a GUI, cut, copy, and paste capability for a PGE Database Entry.	PGS-0930#A	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.

			PGS-0930#B	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.
S-DPS-41355	B	The AITTL CI SSAP GUI for updating the PGE Database shall provide the operations staff with the ability (a) to restrict update access to the PGE Database to authorized personnel and (b) to maintain a record of updates made.	EOSD2400#B	ECS shall provide multiple categories of data protection based on the sensitivity levels of ECS data, as defined in NHB 2410.9.
			PGS-0930#B	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.
S-DPS-41360	B	The AITTL CI SSAP GUI for updating the PGE Database shall have the capability of accepting its inputs from a file.	PGS-0930#B	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.
S-DPS-41400	IR1	The AITTL CI shall include access to a configuration management tool supplied by MSS.	PGS-0950#Ir1	The PGS shall interface to the SMC to maintain configuration control of all algorithms and calibration coefficients used in operational Standard Product production. Controlled information shall contain at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data, and results c. Date and time of operational installation d. Compiler identification and version e. Final algorithm documentation
			PGS-0950#A	The PGS shall interface to maintain configuration control of all algorithms and calibration coefficients used in operational Standard Product production. Controlled information shall contain at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data, and results c. Date and time of operational installation d. Compiler identification and version e. Final algorithm documentation

			PGS-0950#B	The PGS shall interface to maintain configuration control of all algorithms and calibration coefficients used in operational Standard Product production. Controlled information shall contain at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data, and results c. Date and time of operational installation d. Compiler identification and version e. Final algorithm documentation
S-DPS-41410	IR1	The AITTL CI shall include access to a problem tracking tool supplied by MSS.	EOSD0500#B	ECS shall perform the following major functions: a. EOS Mission Planning and Scheduling b. EOS Mission Operations c. Command and Control d. Communications and Networking e. Data Input f. Data Processing g. Data Storage h. Data Distribution i. Information Management j. End-to-End Fault Management k. System Management
			PGS-0950#B	The PGS shall interface to maintain configuration control of all algorithms and calibration coefficients used in operational Standard Product production. Controlled information shall contain at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data, and results c. Date and time of operational installation d. Compiler identification and version e. Final algorithm documentation
S-DPS-41500	IR1	The AITTL CI shall provide the capability for operations staff to write reports. This capability will include: (a) word processing, (b) spreadsheet, (c) plotting, (d) drawing.	PGS-0400#Ir1	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0400#A	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0400#B	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.

S-DPS-41510	IR1	The AITTL CI shall provide templates for reports to be written by the operations staff. (NOTE: It is assumed that these templates will be developed by the Science Office.)	PGS-0400#A	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0400#B	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0400#Ir1	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
S-DPS-41520	IR1	The AITTL CI shall provide the capability for operations staff to keep a running log of integration and test activities on-line.	PGS-0400#Ir1	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0400#A	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0400#B	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
S-DPS-41530	IR1	The AITTL CI shall provide the capability for authorized users to examine the integration and test logs and other reports.	PGS-0400#A	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0400#B	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
			PGS-0400#Ir1	The PGS shall have the capability to monitor the status of all algorithm and calibration coefficient testing and generate algorithm and calibration test reports.
S-DPS-41895	IR1	The AITTL CI shall provide to the operations staff the capability to retrieve a specified data file from local DAAC storage.	PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-41900	A	The AITTL CI shall provide to the operations staff, via a GUI, the capability to retrieve a specified data file from a specified Data Server.	PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-41910	A	The AITTL CI shall provide to the operations staff the capability to retrieve a copy of a specific Science Software Archive Package.	PGS-0960#A	The PGS shall send the DADS new or modified algorithms. This delivery shall contain the following information at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data and results c. Date and time of operational installation d. Final algorithm documentation e. Calibration coefficient values
S-DPS-41920	A	The AITTL CI shall provide to the operations staff the capability to store a Science Software Archive Package to the Data Server.	PGS-0960#A	The PGS shall send the DADS new or modified algorithms. This delivery shall contain the following information at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data and results c. Date and time of operational installation d. Final algorithm documentation e. Calibration coefficient values

Data Processing Subsystem L4 to RbR traceability

S-DPS-42000	IR1	The AITTL CI shall provide the operations staff with the capability to view the metadata associated with a data file.	PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-42005	IR1	The AITTL CI shall provide the operations staff with the capability to edit the metadata associated with a data file.	PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-42010	IR1	The AITTL CI shall provide the operations staff with the capability to write the metadata associated with a data file to a report file.	PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs

			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-42100	IR1	The operations staff shall place a Science Software Delivery Package in a non-public directory accessible to the hardware scheduled to be used for I&T.	PGS-0600#B	The PGS shall provide an algorithm and calibration test and validation environment that is fully compatible with but isolated from the operational production environment.
			PGS-0940#B	The PGS shall provide storage for all candidate algorithms' software executables and calibration coefficients.
S-DPS-42110	IR1	The operations staff shall read and/or review all documentation included in the Delivery Package.	PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs

			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-42120	IR1	The operations staff shall perform automated checking of all source code included in the Delivery Package against established coding standards and guidelines.	PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs

S-DPS-42130	IR1	The operations staff shall perform automated checking of all scripts included in the Delivery Package against established coding standards and guidelines.	PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-42140	IR1	The operations staff shall have the capability to perform static analyses of source code for (at a minimum) argument mismatches and variables set before used.	PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs

			PGS-0650#A	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-42150	IR1	The operations staff shall have the capability to examine all test data and expected test results files included in the Delivery Package to verify completeness and correct format.	PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0620#Ir1	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
S-DPS-42160	IR1	The operations staff shall have the capability to examine all coefficient files included in the Delivery Package to verify completeness and correct format.	PGS-0620#Ir1	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
			PGS-0620#A	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.

			PGS-0620#B	The PGS shall have the capability to validate received calibration coefficients for completeness and correct format.
S-DPS-42170	IR1	The operations staff shall have the capability to compile all FORTRAN77, FORTRAN 90 and C source code included in the Delivery Package.	PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
S-DPS-42175	IR1	The operations staff shall have the capability to compile all Ada source code included in the Delivery Package for CERES.	PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
S-DPS-42180	IR1	The operations staff shall check source code, coefficient files, test plans, test data, expected test results and other documentation into the Configuration Management tool.	SMC-2515#A	The LSM shall provide configuration management for at least the operational hardware, system software, and scientific software within its element and for the migration of enhancements into the operational system.
			SMC-2515#B	The LSM shall provide configuration management for at least the operational hardware, system software, and scientific software within its element and for the migration of enhancements into the operational system.
			SMC-2515#Ir1	The LSM shall provide configuration management for at least the operational hardware, system software, and scientific software within its element and for the migration of enhancements into the operational system.

S-DPS-42190	IR1	The operations staff (and others who are specifically authorized) shall have the capability to check out source code, coefficient files, test plans, test data, expected test results and other documentation from the Configuration Management tool.	SMC-2515#Ir1	The LSM shall provide configuration management for at least the operational hardware, system software, and scientific software within its element and for the migration of enhancements into the operational system.
			SMC-2515#A	The LSM shall provide configuration management for at least the operational hardware, system software, and scientific software within its element and for the migration of enhancements into the operational system.
			SMC-2515#B	The LSM shall provide configuration management for at least the operational hardware, system software, and scientific software within its element and for the migration of enhancements into the operational system.
S-DPS-42200	IR1	Whenever a Science Software Delivery is received by the AITTL CI directly from the SCF via the network, the operations staff shall notify the SCF that the delivery has been received successfully.	SDPS0090#A	The SDPS shall interface with the PIs and the other science users to support the development and testing of data product algorithms and QA of produced data products.
			PGS-0610#A	The PGS shall accept from the SCFs new or modified calibration coefficients to be validated in the test environment. Calibration coefficients shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Date and time g. SCF identification h. Reasons for update
			PGS-0640#A	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum : a. Algorithm identification b. Algorithm source code c. List of required inputs d. Processing dependencies e. Test data and procedures f. Algorithm documentation

			PGS-0610#B	The PGS shall accept from the SCFs new or modified calibration coefficients to be validated in the test environment. Calibration coefficients shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Date and time g. SCF identification h. Reasons for update
			PGS-0640#B	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum : a. Algorithm identification b. Algorithm source code c. List of required inputs d. Processing dependencies e. Test data and procedures f. Algorithm documentation
			SDPS0090#B	The SDPS shall interface with the PIs and the other science users to support the development and testing of data product algorithms and QA of produced data products.
			SDPS0090#Ir1	The SDPS shall interface with the PIs and the other science users to support the development and testing of data product algorithms and QA of produced data products.
			PGS-0640#Ir1	The PGS shall accept from the SCF new or modified Standard Product algorithms to be tested at the processing facility. This software shall be received into the test environment and shall contain the following information at a minimum : a. Algorithm identification b. Algorithm source code c. List of required inputs d. Processing dependencies e. Test data and procedures f. Algorithm documentation

			PGS-0610#Ir1	The PGS shall accept from the SCFs new or modified calibration coefficients to be validated in the test environment. Calibration coefficients shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Date and time g. SCF identification h. Reasons for update
S-DPS-42300	IR1	The operations staff shall have the capability to link FORTRAN77, FORTRAN 90 and C object code with the SCF version of the SDP Toolkit.	PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
S-DPS-42305	IR1	The operations staff shall have the capability to link Ada object code for CERES with the SCF version of the SDP Toolkit.	PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
S-DPS-42310	IR1	The operations staff shall link FORTRAN77, FORTRAN 90 and C object code with the DAAC version of the SDP Toolkit.	PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-42315	IR1	The operations staff shall link Ada object code for CERES with the DAAC version of the SDP Toolkit.	PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-42320	IR1	The operations staff shall have the capability to link FORTRAN77, FORTRAN 90 and C object code with other libraries.	PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).

			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-42325	IR1	The operations staff shall have the capability to link Ada object code for CERES with other libraries.	PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
S-DPS-42330	A	The operations staff shall have the capability to run binary executables without impacting other ongoing DAAC activities.	PGS-0600#B	The PGS shall provide an algorithm and calibration test and validation environment that is fully compatible with but isolated from the operational production environment.
			PGS-0600#A	The PGS shall provide an algorithm and calibration test and validation environment that is fully compatible with but isolated from the operational production environment.
S-DPS-42340	A	The operations staff shall have the capability to perform dynamic analyses of source code for (at a minimum) memory leaks, out of bounds indexing, and distribution of resource demands.	PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-42350	IR1	The operations staff shall have the capability to execute perl, C shell or Bourne shell scripts.	PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-42360	IR1	The operations staff shall have the capability of determining the computing resources utilized by an execution of a PGE; viz., PGE CPU time, system CPU time, elapsed time, percent elapsed time, shared memory use, maximum memory used, number of page faults, number of swaps, number of block input operations, and number of block output operations.	PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0650#Ir1	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
S-DPS-42365	B	The operations staff shall have the capability to use MSS profiling capabilities to determine the computing resources utilized by the execution of a chain of PGEs.	PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
			PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs

S-DPS-42370	IR1	The operations staff shall collect during I&T the performance and resource utilization information needed for entry into or update of the PGE data base.	PGS-0650#B	The PGS shall have the capability to validate required operational algorithm characteristics prior to scheduling algorithm test time. These characteristics shall be include at a minimum: a. Language b. Operational impacts (e.g., algorithm software size, required resources) c. Algorithm documentation d. Data handling standards as appropriate e. Units and models used f. Operational compatibility g. Required metadata outputs
			PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
S-DPS-42500	IR1	The operations staff shall execute the Test Plans included in the Delivery Package.	PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-42510	IR1	The operations staff shall have the capability of displaying Data Products.	PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.

			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-42520	IR1	The operations staff shall have the capability of displaying data in intermediate files used to generate a Data Product.	PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-42530	IR1	The operations staff shall have the capability of displaying data in input files used to generate a Data Product.	PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-42540	IR1	The operations staff shall have the capability of displaying data in coefficient files used to generate a Data Product.	PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-42550	IR1	The operations staff shall have the capability of displaying the Ancillary Data used to generate a Data Product .	PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-42560	IR1	The operations staff shall have the capability of viewing the Status Information files associated with the generated Data Product.	PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-42570	IR1	The operations staff shall have the capability of displaying all metadata associated with the generation of a Data Product.	PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-42580	IR1	The operations staff shall have the capability of comparing data in two coefficient files.	PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-42590	IR1	The operations staff shall have the capability of comparing two Data Product files.	PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-42600	IR1	The operations staff shall have the capability of comparing data in two intermediate files.	PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.

			PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-42610	IR1	The operations staff shall enter new PGEs into the PGE Database, along with their performance and resource utilization information.	PGS-0930#B	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.
			PGS-0960#B	The PGS shall send the DADS new or modified algorithms. This delivery shall contain the following information at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data and results c. Date and time of operational installation d. Final algorithm documentation e. Calibration coefficient values
S-DPS-42620	IR1	The operations staff shall update information the PGE Database as necessary to reflect changes in performance and resource utilization resulting from a modification to a PGE.	PGS-0930#B	The PGS shall have the capability to transfer validated algorithm software and calibration coefficients from the test environment to the operational environment to be used in the production of Standard Products.
			PGS-0960#B	The PGS shall send the DADS new or modified algorithms. This delivery shall contain the following information at a minimum: a. Source code including version number and author b. Benchmark test procedures, test data and results c. Date and time of operational installation d. Final algorithm documentation e. Calibration coefficient values
S-DPS-42630	A	The operations staff shall have the capability of run PGEs in a parallel test or for a commissioning period, utilizing the Planning and Processing Subsystems and the Product output flagged as "test".	PGS-0605#B	The PGS shall process pre-launch test data and provide test data product samples for user verification.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0605#A	The PGS shall process pre-launch test data and provide test data product samples for user verification.

			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-42640	IR1	The operations staff shall have the capability to send the test results to the SCF for analysis.	PGS-0900#Ir1	The PGS shall send test products to the SCF for analysis. These shall contain the results of algorithm testing and shall contain the following information at a minimum: a. Algorithm identification b. Test time(s) c. Processor identification d. Test results
			SDPS0090#A	The SDPS shall interface with the PIs and the other science users to support the development and testing of data product algorithms and QA of produced data products.
			PGS-0900#A	The PGS shall send test products to the SCF for analysis. These shall contain the results of algorithm testing and shall contain the following information at a minimum: a. Algorithm identification b. Test time(s) c. Processor identification d. Test results
			PGS-0900#B	The PGS shall send test products to the SCF for analysis. These shall contain the results of algorithm testing and shall contain the following information at a minimum: a. Algorithm identification b. Test time(s) c. Processor identification d. Test results
S-DPS-42650	IR1	The operations staff shall have the capability to write ad hoc test tools using the perl, C shell or Bourne shell script languages.	PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.

S-DPS-42660	IR1	The operations staff shall have the capability to write ad hoc test tools using the FORTRAN77, FORTRAN 90 and C programming languages.	PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-42700	IR1	The operations staff shall have the capability to enter and track discrepancy reports related to AI&T.	EOSD1760#A	The ECS elements shall send the following types of data at a minimum to the ECS science community (TLs, TMs, PIs, and Co-Is): a. Software Problem Reports b. Documentation c. Metadata (copies of inventories) d. Browse data e. Archived data f. Accounting information
			EOSD1760#B	The ECS elements shall send the following types of data at a minimum to the ECS science community (TLs, TMs, PIs, and Co-Is): a. Software Problem Reports b. Documentation c. Metadata (copies of inventories) d. Browse data e. Archived data f. Accounting information
			EOSD1760#Ir1	The ECS elements shall send the following types of data at a minimum to the ECS science community (TLs, TMs, PIs, and Co-Is): a. Software Problem Reports
S-DPS-42710	IR1	The operations staff shall have the capability to send to and receive email messages from Science Software Developer staff and ECS staff.	SDPS0090#Ir1	The SDPS shall interface with the PIs and the other science users to support the development and testing of data product algorithms and QA of produced data products.
			SDPS0090#A	The SDPS shall interface with the PIs and the other science users to support the development and testing of data product algorithms and QA of produced data products.
			SDPS0090#B	The SDPS shall interface with the PIs and the other science users to support the development and testing of data product algorithms and QA of produced data products.

S-DPS-42720	IR1	The operations staff shall have the capability to engage in teleconferences with Science Software Developer staff and ECS staff.	SDPS0090#B	The SDPS shall interface with the PIs and the other science users to support the development and testing of data product algorithms and QA of produced data products.
			SDPS0090#A	The SDPS shall interface with the PIs and the other science users to support the development and testing of data product algorithms and QA of produced data products.
			SDPS0090#Ir1	The SDPS shall interface with the PIs and the other science users to support the development and testing of data product algorithms and QA of produced data products.
S-DPS-42740	IR1	The operations staff shall reports on the status of I&T-related discrepancy reports.	EOSD1760#Ir1	The ECS elements shall send the following types of data at a minimum to the ECS science community (TLs, TMs, PIs, and Co-Is): a. Software Problem Reports
			EOSD1760#B	The ECS elements shall send the following types of data at a minimum to the ECS science community (TLs, TMs, PIs, and Co-Is): a. Software Problem Reports b. Documentation c. Metadata (copies of inventories) d. Browse data e. Archived data f. Accounting information
			EOSD1760#A	The ECS elements shall send the following types of data at a minimum to the ECS science community (TLs, TMs, PIs, and Co-Is): a. Software Problem Reports b. Documentation c. Metadata (copies of inventories) d. Browse data e. Archived data f. Accounting information
S-DPS-42750	IR1	The operations staff shall have the capability of record each step performed during I&T, the results and actions initiated, if any.	PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.

S-DPS-42760	IR1	The operations staff shall report on the status of the I&T activities each PGE.	PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-42770	IR1	The operations staff shall have the capability of writing an Inspection Report for each Science Software Delivery.	PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-42780	IR1	The operations staff shall have the capability of writing an Integration Report for each Science Software Delivery.	PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
S-DPS-42790	IR1	The operations staff shall have the capability of writing an Acceptance Test Report for each Science Software Delivery.	PGS-0910#A	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#B	The PGS shall have the capability to support analysis of algorithm test results.
			PGS-0910#Ir1	The PGS shall have the capability to support analysis of algorithm test results.

Data Processing Subsystem L4 to RbR traceability

S-DPS-60010	A	The SPRHW CI shall support the capability to manage, queue, and execute processes on the processing resources at each DAAC site.	EOSD0500#B	ECS shall perform the following major functions: a. EOS Mission Planning and Scheduling b. EOS Mission Operations c. Command and Control d. Communications and Networking e. Data Input f. Data Processing g. Data Storage h. Data Distribution i. Information Management j. End-to-End Fault Management k. System Management
			SDPS0031#A	The SDPS shall generate browse data and metadata for routing to the requesting users.
S-DPS-60020	A	The SPRHW CI shall support the capability to stage and destage data.	EOSD0500#B	ECS shall perform the following major functions: a. EOS Mission Planning and Scheduling b. EOS Mission Operations c. Command and Control d. Communications and Networking e. Data Input f. Data Processing g. Data Storage h. Data Distribution i. Information Management j. End-to-End Fault Management k. System Management
S-DPS-60050	IR1	The SPRHW CI shall contain and/or provide access to staging (working storage), I/O and processing resources necessary to perform routine processing.	EOSD0500#B	ECS shall perform the following major functions: a. EOS Mission Planning and Scheduling b. EOS Mission Operations c. Command and Control d. Communications and Networking e. Data Input f. Data Processing g. Data Storage h. Data Distribution i. Information Management j. End-to-End Fault Management k. System Management

			PGS-0940#Ir1	The PGS shall provide storage for all candidate algorithms' software executables and calibration coefficients.
			PGS-0940#A	The PGS shall provide storage for all candidate algorithms' software executables and calibration coefficients.
			PGS-0940#B	The PGS shall provide storage for all candidate algorithms' software executables and calibration coefficients.
			EOSD0500#Ir1	ECS shall perform the following major functions: d. Communications and Networking e. Data Input f. Data Processing
S-DPS-60060	A	The SPRHW CI product generation computer(s) shall have a Fail-Soft capability.	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
			EOSD4020#A	At each DAAC site, the product generation functional capabilities shall be spread across multiple product generation computers thereby providing a "failsoft" environment.
			SDPS0120#A	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
			EOSD4020#B	At each DAAC site, the product generation functional capabilities shall be spread across multiple product generation computers thereby providing a "failsoft" environment.
S-DPS-60080	IR1	The SPRHW CI shall have provision for Initialization, Recovery, and an orderly shutdown.	EOSD1703#Ir1	ECS shall provide maintenance and operations interfaces to the DAACs to support the functions of: b). Science Algorithm Integration
			EOSD1703#A	ECS shall provide maintenance and operations interfaces to the DAACs to support the functions of: a). System Management b). Science Algorithm Integration c). Product Generation d). Data Archive/Distribution e). User Support Services f). System Maintenance

			EOSD1703#B	ECS shall provide maintenance and operations interfaces to the DAACs to support the functions of: a). System Management b). Science Algorithm Integration c). Product Generation d). Data Archive/Distribution e). User Support Services f). System Maintenance
S-DPS-60090	A	The SPRHW CI shall support startup and initialization to be completed within 30 minutes (TBR)	SDPS0120#A	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
			SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-60100	A	The SPRHW CI shall support shutdown to be completed within 30 minutes (TBR).	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
			SDPS0120#A	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-60110	A	The SPRHW CI shall have a fault detection/fault isolation capability of major HWCI component failures without interfering with operations.	SDPS0120#A	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
			SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-60120	IR1	The SPRHW CI shall have a status monitoring capability.	SDPS0010#Ir1	The SDPS shall provide CSMS with operational, and data processing, data quality status.
			SDPS0010#B	The SDPS shall provide CSMS with operational, data processing, data quality and accounting status.
			SDPS0010#A	The SDPS shall provide CSMS with operational, data processing, and data quality.
S-DPS-60135	A	The SPRHW CI design and implementation shall have the flexibility to accommodate Science Processing expansion up to a factor of 3 in its capacity with no changes in its design and up to a factor of 10 without major changes to its design.	SDPS0170#A	The SDPS shall accommodate growth in the instrument processing load and storage capacity without changes to the SDPS architecture or design.

			EOSD1720#A	ECS elements shall receive from the ECS user community the following types of data requests at a minimum: b. Data Distribution Requests c. Reprocessing Requests
			EOSD0545#A	ECS shall be able to accommodate growth (e.g., capacity) in all of its functions as well as the addition of new functions.
			PGS-1270#A	The PGS design and implementation shall have the flexibility to accommodate PGS expansion up to a factor of 3 in the processing capacity with no changes to the processing design, and up to a factor of 10 without major changes to the processing design. Such expansion in capacity or capability shall be transparent to existing algorithms or product specifications. This requirement shall apply to the system at all phases of contract performance, including the final system which accommodates the product growth specified in Appendix C, as well as the at-launch system.
			EOSD0540#A	ECS elements shall be expandable to facilitate updates in instrument data products and algorithms, particularly with respect to storage capacity and processing capability.
			PGS-1270#B	The PGS design and implementation shall have the flexibility to accommodate PGS expansion up to a factor of 3 in the processing capacity with no changes to the processing design, and up to a factor of 10 without major changes to the processing design. Such expansion in capacity or capability shall be transparent to existing algorithms or product specifications. This requirement shall apply to the system at all phases of contract performance, including the final system which accommodates the product growth specified in Appendix C, as well as the at-launch system.
			SDPS0170#B	The SDPS shall accommodate growth in the instrument processing load and storage capacity without changes to the SDPS architecture or design.
			EOSD0540#B	ECS elements shall be expandable to facilitate updates in instrument data products and algorithms, particularly with respect to storage capacity and processing capability.
			EOSD1720#B	ECS elements shall receive from the ECS user community the following types of data requests at a minimum: a. Data Acquisition Requests b. Data Distribution Requests c. Reprocessing Requests

S-DPS-60160	A	The SPRHW CI shall support collection and maintenance for Fault Management, configuration, performance, accountability, and security of Processing CI hardware resources.	PGS-0310#A	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
			PGS-0310#B	The PGS element shall collect the management data used to support the following system management functions: a. Fault Management b. Configuration Management c. Accounting Management d. Accountability Management e. Performance Management f. Security Management g. Scheduling Management.
S-DPS-60230	A	The SPRHW CI shall provide a phased capacity to support: a. for pre-launch AI&T at launch minus 2 years: 0.3 X, where X is defined as the at-launch processing estimate b. for pre-launch AI&T and System I&T at-launch minus 1 year: 1.2 X, where X is defined as the at-launch processing estimate c. for post-launch AIT, standard processing, and reprocessing, starting at launch plus 1 year: 2.2 X, where X is defined as the standard processing estimate for that period d. for post-launch AIT, standard processing, and reprocessing, starting at launch plus 2 years: 4.2 X, where X is defined as the standard processing estimate for that period.	PGS-1300#A	Each PGS shall provide a processing capacity four times the size necessary to process all EOS science data for which it is responsible, including interdisciplinary investigator processing. It shall be possible to effectively utilize the entire reprocessing capacity at each site on computers with similar architectural design (e.g., parallel processors), for a single algorithm or any mix of algorithms normally run at that site. The four times processing capacity accounts for: a. 1 times to allow for normal processing demands b. 2 times to allow for reprocessing demands c. 1 times to allow for algorithm integration and test demands, production of prototype products, ad hoc processing for "dynamic browse" or new search and access techniques developed by science users, and additional loads due to spacecraft overlap.

			PGS-1300#B	Each PGS shall provide a processing capacity four times the size necessary to process all EOS science data for which it is responsible, including interdisciplinary investigator processing. It shall be possible to effectively utilize the entire reprocessing capacity at each site on computers with similar architectural design (e.g., parallel processors), for a single algorithm or any mix of algorithms normally run at that site. The four times processing capacity accounts for: a. 1 times to allow for normal processing demands b. 2 times to allow for reprocessing demands c. 1 times to allow for algorithm integration and test demands, production of prototype products, ad hoc processing for "dynamic browse" or new search and access techniques developed by science users, and additional loads due to spacecraft overlap.
			EOSD1040#A	ECS shall provide sufficient capacity to permit the reprocessing of all EOS science data at twice the incoming data rate at a minimum, concurrently with processing of new data.
			EOSD1040#B	ECS shall provide sufficient capacity to permit the reprocessing of all EOS science data at twice the incoming data rate at a minimum, concurrently with processing of new data.
S-DPS-60240	A	The SPRHW CI shall support a total processing requirement as derived from Table E-1 of Appendix E of the current version of 304-CD-002 for Release A and Appendix E of the current version of 304-CD-005 for Release B.	PGS-1300#A	Each PGS shall provide a processing capacity four times the size necessary to process all EOS science data for which it is responsible, including interdisciplinary investigator processing. It shall be possible to effectively utilize the entire reprocessing capacity at each site on computers with similar architectural design (e.g., parallel processors), for a single algorithm or any mix of algorithms normally run at that site. The four times processing capacity accounts for: a. 1 times to allow for normal processing demands b. 2 times to allow for reprocessing demands c. 1 times to allow for algorithm integration and test demands, production of prototype products, ad hoc processing for "dynamic browse" or new search and access techniques developed by science users, and additional loads due to spacecraft overlap.

			PGS-1300#B	Each PGS shall provide a processing capacity four times the size necessary to process all EOS science data for which it is responsible, including interdisciplinary investigator processing. It shall be possible to effectively utilize the entire reprocessing capacity at each site on computers with similar architectural design (e.g., parallel processors), for a single algorithm or any mix of algorithms normally run at that site. The four times processing capacity accounts for: a. 1 times to allow for normal processing demands b. 2 times to allow for reprocessing demands c. 1 times to allow for algorithm integration and test demands, production of prototype products, ad hoc processing for "dynamic browse" or new search and access techniques developed by science users, and additional loads due to spacecraft overlap.
			EOSD1010#A	ECS shall support daily data volume, processing load, storage volume, instrument support, and data traffic as derivable from and specified in Appendix C and D.
			PGS-1301#A	The effective CPU processing rates used for sizing purposes in PGS-1300 shall not be greater than 25% of peak-related CPU capacity.
			PGS-1310#A	The processing capacity necessary to process all EOS science data for which each PGS is responsible shall be based on the data volumes and at-launch instrument processing load requirements (MFLOPS) assigned to each DAAC.
			PGS-1301#B	The effective CPU processing rates used for sizing purposes in PGS-1300 shall not be greater than 25% of peak-related CPU capacity.
			PGS-1310#B	The processing capacity necessary to process all EOS science data for which each PGS is responsible shall be based on the data volumes and at-launch instrument processing load requirements (MFLOPS) assigned to each DAAC.
			EOSD1010#B	ECS shall support daily data volume, processing load, storage volume, instrument support, and data traffic as derivable from and specified in Appendix C and D.
			SDPS0031#A	The SDPS shall generate browse data and metadata for routing to the requesting users.
S-DPS-60241	B	The SPRHW CI processing time shall not exceed the overall end-to-end turnaround time of 24 hours minus the processing time of other subsystems involved in instrument product processing.	LAND-0210#B	The ECS shall begin normal distribution of Landsat 7 products, within 24 hours from the time of receipt of the product order.

			EOSD1050#B	ECS shall generate and make available to the users Level 1 Standard Products within 24 hours after the availability to ECS of all necessary input data sets.
			EOSD1070#B	ECS shall generate and make available to the users Level 3 Standard Products within 24 hours after the availability to ECS of all necessary Level 2 and other input data sets.
			EOSD1060#B	ECS shall generate and make available to the users Level 2 Standard Products within 24 hours after the availability to ECS of all necessary Level 1 and other input data sets.
S-DPS-60242	B	The SPRHW CI processing shall be sized in accordance with processing requirements derived from Appendix E (Section E.2 Table E-2) of the current version of 304-CD-005.	EOSD1010#B	ECS shall support daily data volume, processing load, storage volume, instrument support, and data traffic as derivable from and specified in Appendix C and D.
			PGS-1300#B	Each PGS shall provide a processing capacity four times the size necessary to process all EOS science data for which it is responsible, including interdisciplinary investigator processing. It shall be possible to effectively utilize the entire reprocessing capacity at each site on computers with similar architectural design (e.g., parallel processors), for a single algorithm or any mix of algorithms normally run at that site. The four times processing capacity accounts for: a. 1 times to allow for normal processing demands b. 2 times to allow for reprocessing demands c. 1 times to allow for algorithm integration and test demands, production of prototype products, ad hoc processing for "dynamic browse" or new search and access techniques developed by science users, and additional loads due to spacecraft overlap.
			PGS-1310#B	The processing capacity necessary to process all EOS science data for which each PGS is responsible shall be based on the data volumes and at-launch instrument processing load requirements (MFLOPS) assigned to each DAAC.
			PGS-1301#B	The effective CPU processing rates used for sizing purposes in PGS-1300 shall not be greater than 25% of peak-related CPU capacity.
S-DPS-60250	A	The SPRHW CI shall be able to support a data volume (GB/Day) as derived from Table E-1 of Appendix E of the current version of 304-CD-002 for Release A and Appendix E of the current version of 304-CD-005 for Release B.	EOSD1010#B	ECS shall support daily data volume, processing load, storage volume, instrument support, and data traffic as derivable from and specified in Appendix C and D.

			EOSD1040#B	ECS shall provide sufficient capacity to permit the reprocessing of all EOS science data at twice the incoming data rate at a minimum, concurrently with processing of new data.
			EOSD1010#A	ECS shall support daily data volume, processing load, storage volume, instrument support, and data traffic as derivable from and specified in Appendix C and D.
			EOSD1040#A	ECS shall provide sufficient capacity to permit the reprocessing of all EOS science data at twice the incoming data rate at a minimum, concurrently with processing of new data.
S-DPS-60251	B	The SPRHW CI storage capacity shall be sized in accordance with the volume requirement derived from Appendix E (Section E.2 Table E-2) of the current version of 304-CD-005.	EOSD1010#B	ECS shall support daily data volume, processing load, storage volume, instrument support, and data traffic as derivable from and specified in Appendix C and D.
S-DPS-60260	B	The SPRHW CI processing shall be sized in accordance with DAO processing requirements derived from Appendix E (Section E.1 Table E-1) of the current version of 304-CD-005.	EOSD1010#B	ECS shall support daily data volume, processing load, storage volume, instrument support, and data traffic as derivable from and specified in Appendix C and D.
S-DPS-60270	B	The SPRHW CI storage capacity shall be sized in accordance with the DAO data volume requirement derived from Appendix E (Section E.1 Table E-1) of the current version of 304-CD-005.	EOSD1010#B	ECS shall support daily data volume, processing load, storage volume, instrument support, and data traffic as derivable from and specified in Appendix C and D.
S-DPS-60330	IR1	The SPRHW CI shall have the capacity to support I/O to temporary and intermediate storage or multiple passes over input Products as required by individual science software.	PGS-1315#Ir1	Each PGS shall have the capacity to support I/O to temporary and intermediate storage or multiple passes over input products as required by individual science algorithms.
			PGS-1315#A	Each PGS shall have the capacity to support I/O to temporary and intermediate storage or multiple passes over input products as required by individual science algorithms.
			PGS-1315#B	Each PGS shall have the capacity to support I/O to temporary and intermediate storage or multiple passes over input products as required by individual science algorithms.
S-DPS-60350	A	The SPRHW CI shall generate Level 1 Standard Products within 24 hours after processing is initiated.	EOSD1050#A	ECS shall generate and make available to the users Level 1 Standard Products within 24 hours after the availability to ECS of all necessary input data sets.

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S-DPS-60351	B	The SPRHW CI shall contribute to the generation of Level 1 Standard Products within 24 hours after processing is initiated.	EOSD1050#B	ECS shall generate and make available to the users Level 1 Standard Products within 24 hours after the availability to ECS of all necessary input data sets.
			LAND-0210#B	The ECS shall begin normal distribution of Landsat 7 products, within 24 hours from the time of receipt of the product order.
S-DPS-60360	A	The SPRHW CI shall generate Level 2 Standard Products within 24 hours after processing is initiated.	EOSD1060#A	ECS shall generate and make available to the users Level 2 Standard Products within 24 hours after the availability to ECS of all necessary Level 1 and other input data sets.
S-DPS-60361	B	The SPRHW CI shall contribute to the generation of Level 2 Standard Products within 24 hours after processing is initiated.	EOSD1060#B	ECS shall generate and make available to the users Level 2 Standard Products within 24 hours after the availability to ECS of all necessary Level 1 and other input data sets.
S-DPS-60370	A	The SPRHW CI shall generate Level 3 Standard Products within 24 hours after processing is initiated.	EOSD1070#A	ECS shall generate and make available to the users Level 3 Standard Products within 24 hours after the availability to ECS of all necessary Level 2 and other input data sets.
S-DPS-60371	B	The SPRHW CI shall contribute to the generation of Level 3 Standard Products within 24 hours after processing is initiated.	EOSD1070#B	ECS shall generate and make available to the users Level 3 Standard Products within 24 hours after the availability to ECS of all necessary Level 2 and other input data sets.
S-DPS-60380	A	The SPRHW CI shall generate and make available to the users Level 4 Standard Products within one week after the availability to ECS of all necessary Level 3 and other input data sets.	EOSD1080#B	ECS shall generate and make available to the users Level 4 Standard Products within one week after the availability to ECS of all necessary Level 3 and other input data sets.
			EOSD1080#A	ECS shall generate and make available to the users Level 4 Standard Products within one week after the availability to ECS of all necessary Level 3 and other input data sets.
S-DPS-60410	B	The SPRHW CI shall be capable of operating in a 24 hour per day, 7 days a week mode.	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-60450	A	Each computer providing product generation capability shall have an operational availability of 0.95 at a minimum.	EOSD4010#B	Each computer providing product generation shall have an operational availability of 0.95 at a minimum (.9995 design goal).
			EOSD4010#A	Each computer providing product generation shall have an operational availability of 0.95 at a minimum (.9995 design goal).

S-DPS-60480	A	The SPRHW CI shall have provision for the AIT science processor to be a backup to the production science processor in the event of a failure.	SDPS0120#A	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
			SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-60490	A	The SPRHW CI shall be capable of supporting system development without impact to normal operations.	EOSD3700#B	ECS functions shall have an operational availability of 0.96 at a minimum (.998 design goal) and an MDT of four (4) hours or less (1.5 hour design goal), unless otherwise specified. The above requirement covers equipment including: a. "Non-critical" equipment configured with the critical equipment supporting the functional capabilities in the requirements. b. Equipment providing other functionality not explicitly stated in the RMA requirements that follow.
			EOSD3700#A	ECS functions shall have an operational availability of 0.96 at a minimum (.998 design goal) and an MDT of four (4) hours or less (1.5 hour design goal), unless otherwise specified. The above requirement covers equipment including: a. "Non-critical" equipment configured with the critical equipment supporting the functional capabilities in the requirements. b. Equipment providing other functionality not explicitly stated in the RMA requirements that follow.
			SDPS0140#A	The SDPS shall support element, system, and subsystem test activities throughout the development phase.
S-DPS-60500	A	The SPRHW CI shall be capable of supporting science software test without impact to normal operations.	PGS-0870#A	The PGS shall have the capability to schedule algorithm test resources that do not interfere with the operational.
			SDPS0140#A	The SDPS shall support element, system, and subsystem test activities throughout the development phase.
			PGS-0870#B	The PGS shall have the capability to schedule algorithm test resources that do not interfere with the operational production environment.
			EOSD3700#A	ECS functions shall have an operational availability of 0.96 at a minimum (.998 design goal) and an MDT of four (4) hours or less (1.5 hour design goal), unless otherwise specified. The above requirement covers equipment including: a. "Non-critical" equipment configured with the critical equipment supporting the functional capabilities in the requirements. b. Equipment providing other functionality not explicitly stated in the RMA requirements that follow.

			EOSD3700#B	ECS functions shall have an operational availability of 0.96 at a minimum (.998 design goal) and an MDT of four (4) hours or less (1.5 hour design goal), unless otherwise specified. The above requirement covers equipment including: a. "Non-critical" equipment configured with the critical equipment supporting the functional capabilities in the requirements. b. Equipment providing other functionality not explicitly stated in the RMA requirements that follow.
S-DPS-60520	A	The SPRHW CI elements and components shall include the on-line (operational mode) and off-line (test mode) fault detection and isolation capabilities required to achieve the specified operational availability requirements.	EOSD4100#B	The ECS segments, elements, and components shall include the on-line (operational mode) and off-line (test mode) fault detection and isolation capabilities required to achieve the specified operational availability requirements.
			SDPS0140#B	The SDPS shall support element, system, and subsystem test activities throughout the development phase.
			EOSD4100#A	The ECS segments, elements, and components shall include the on-line (operational mode) and off-line (test mode) fault detection and isolation capabilities required to achieve the specified operational availability requirements.
			SDPS0140#A	The SDPS shall support element, system, and subsystem test activities throughout the development phase.
S-DPS-60525	A	SPRHW CI functions shall have an operational availability of .96 as a minimum and Mean Down Time of < 4 hours during times of staffed operation.	EOSD3700#B	ECS functions shall have an operational availability of 0.96 at a minimum (.998 design goal) and an MDT of four (4) hours or less (1.5 hour design goal), unless otherwise specified. The above requirement covers equipment including: a. "Non-critical" equipment configured with the critical equipment supporting the functional capabilities in the requirements. b. Equipment providing other functionality not explicitly stated in the RMA requirements that follow.
			EOSD3700#A	ECS functions shall have an operational availability of 0.96 at a minimum (.998 design goal) and an MDT of four (4) hours or less (1.5 hour design goal), unless otherwise specified. The above requirement covers equipment including: a. "Non-critical" equipment configured with the critical equipment supporting the functional capabilities in the requirements. b. Equipment providing other functionality not explicitly stated in the RMA requirements that follow.

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S-DPS-60535	A	The maximum down time of the SPRHW CI shall not exceed twice the required MDT in 99 percent of failure occurrences.	EOSD3630#B	The maximum down time shall not exceed twice the required MDT in 99 percent of failure occurrences.
			EOSD3630#A	The maximum down time shall not exceed twice the required MDT in 99 percent of failure occurrences.
S-DPS-60610	IR1	The SPRHW CI platforms shall have provision for interfacing with one or more Local Area Networks (LANs).	SDPS0020#A	The SDPS shall receive EOS science, engineering, ancillary, and expedited data from the EDOS, and SDPF, and non-EOS ancillary data (as listed in Appendix C) from ADCs.
			SDPS0020#B	The SDPS shall receive EOS science, engineering, ancillary and expedited data from the EDOS, the SDPF, and the IPs, and non-EOS data, in situ data, associated algorithms, documentation, correlative data, and ancillary data (as listed in Appendix C) from ADCs, EPDSs, and ODCs.
			SDPS0020#Ir1	The SDPS shall receive EOS science, and engineering data from the SDPF, and non-EOS ancillary data (as listed in Appendix C) from ADCs.
S-DPS-60612	A	The SPRHW CI platforms shall have provision for interfacing with Data Server.	PGS-0440#A	The PGS shall accept from the DADS L0-L4 data products. Received information shall contain at a minimum: a. Product identification b. L0-L4 data set c. Metadata required for processing d. Current date and time e. DADS identification
			PGS-0630#B	The PGS shall send the DADS new or modified calibration coefficients which shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Documentation

			PGS-1240#A	The PGS shall send the generated Level 1 to Level 4 Standard Products to the DADS. These products shall contain the following information at a minimum: a. Product identification b. L1-L4 data set c. Product processing priority d. Current date and time e. Associated metadata
			PGS-0440#B	The PGS shall accept from the DADS L0-L4 data products. Received information shall contain at a minimum: a. Product identification b. L0-L4 data set c. Metadata required for processing d. Current date and time e. DADS identification
			PGS-0630#A	The PGS shall send the DADS new or modified calibration coefficients which shall contain the following information at a minimum: a. Identification of coefficient data set b. Calibration coefficients values c. Author and version number d. Identification of related processing algorithm e. Start and stop date/time of applicability f. Documentation
			PGS-1240#B	The PGS shall send the generated Level 1 to Level 4 Standard Products to the DADS. These products shall contain the following information at a minimum: a. Product identification b. L1-L4 data set c. Product processing priority d. Current date and time e. Associated metadata
			PGS-1250#B	The PGS shall send the DADS the calibrated ancillary data.
S-DPS-60615	A	The SPRHW CI platforms shall have provision for interfacing with Ingest	PGS-0455#B	The PGS shall have the capability to assess the quality of spacecraft orbit and attitude (O/A) data contained in the ancillary data. QA shall be in the form of limits checking.
			EOSD1705#B	ECS shall support interfaces to DAAC Unique components.

S-DPS-60617	A	The SPRHW CI platforms shall have provision for interfacing with Planning.	EOSD0740#B	Each ECS element shall provide a set of real or simulated functional capabilities for use in the following types of test: a. Subsystem (components of an ECS element) b. Element (fully integrated element) c. ECS System (Integration of ECS elements)
			EOSD1705#B	ECS shall support interfaces to DAAC Unique components.
			EOSD0740#A	Each ECS element shall provide a set of real or simulated functional capabilities for use in the following types of test: a. Subsystem (components of an ECS element) b. Element (fully integrated element) c. ECS System (Integration of ECS elements)
			EOSD1705#A	ECS shall support interfaces to DAAC Unique components.
S-DPS-60710	IR1	The electrical power requirements for SPRHW CI equipment shall be in accordance with ECS Facilities Plan (DID 302/DV2)	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-60740	IR1	The air conditioning requirements for the SPRHW CI equipment shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-60750	IR1	The grounding requirements for SPRHW CI equipment shall be in accordance with ECS Facilities Plan (DID 302/DV2).	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-60760	IR1	The fire alarm requirements for SPRHW CI equipment shall be in accordance with ECS Facilities Plan (DID 302/DV2).	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-60770	A	The acoustical requirements for SPRHW CI equipment shall be in accordance with ECS Facilities Plan (DID 302/DV2).	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
			SDPS0120#A	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-60780	IR1	The physical interface requirements between SPRHW CI equipment and the facility shall be in accordance with ECS Facilities Plan (DID 302/DV2).	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.

S-DPS-60790	IR1	The footprint size and the physical layout of SPRHW CI equipment shall be in accordance with the and ECS Facilities Plan (DID 302/DV2).	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-60910	IR1	The SPRHW CI shall support test activities throughout the development phase.	SDPS0140#B	The SDPS shall support element, system, and subsystem test activities throughout the development phase.
			SDPS0140#A	The SDPS shall support element, system, and subsystem test activities throughout the development phase.
			EOSD0510#A	ECS shall be capable of being tested during all phases of its development and flight operations.
			EOSD0780#A	Each ECS element shall be capable of being monitored during testing.
			EOSD0780#Ir1	Each ECS element shall be capable of being monitored during testing.
			EOSD0510#B	ECS shall be capable of being tested during all phases of its development and flight operations.
			EOSD0780#B	Each ECS element shall be capable of being monitored during testing.
S-DPS-60920	A	The following testing shall be performed on the SPRHW CI: a. Unit testing b. Subsystem testing c. Integration & Testing d. End-to- End testing	EOSD0510#B	ECS shall be capable of being tested during all phases of its development and flight operations.
			EOSD0800#B	Each ECS element shall be capable of supporting end-to-end test and verification activities of the EOS program including during the pre-launch, spacecraft verification, and instrument verification phases.
			EOSD0750#B	Each ECS element shall provide a set of real or simulated functions which interfaces with both its ECS internal and external entities for use in the following types of test: a. Subsystem (components of an ECS element) b. Element (fully integrated element) c. EOSDIS System (Integration of EOSDIS elements)

			EOSD0730#B	Each ECS element shall be capable of verifying the fidelity of the ECS element interface to: a. Other ECS elements at any time during the lifetime of the ECS b. Entities external to ECS at any time during the lifetime of the ECS
			EOSD0740#B	Each ECS element shall provide a set of real or simulated functional capabilities for use in the following types of test: a. Subsystem (components of an ECS element) b. Element (fully integrated element) c. ECS System (Integration of ECS elements)
			SDPS0140#A	The SDPS shall support element, system, and subsystem test activities throughout the development phase.
			EOSD0800#A	Each ECS element shall be capable of supporting end-to-end test and verification activities of the EOS program including during the pre-launch, spacecraft verification, and instrument verification phases.
			EOSD0750#A	Each ECS element shall provide a set of real or simulated functions which interfaces with both its ECS internal and external entities for use in the following types of test: a. Subsystem (components of an ECS element) b. Element (fully integrated element) c. EOSDIS System (Integration of EOSDIS elements)
			EOSD0740#A	Each ECS element shall provide a set of real or simulated functional capabilities for use in the following types of test: a. Subsystem (components of an ECS element) b. Element (fully integrated element) c. ECS System (Integration of ECS elements)
			EOSD0730#A	Each ECS element shall be capable of verifying the fidelity of the ECS element interface to: a. Other ECS elements at any time during the lifetime of the ECS b. Entities external to ECS at any time during the lifetime of the ECS
			EOSD0510#A	ECS shall be capable of being tested during all phases of its development and flight operations.
			SDPS0140#B	The SDPS shall support element, system, and subsystem test activities throughout the development phase.

S-DPS-60930	IR1	The SPRHW CI shall provide test tools as designated in the SDPS Test Tool Matrix.	EOSD0510#A	ECS shall be capable of being tested during all phases of its development and flight operations.
			EOSD0510#B	ECS shall be capable of being tested during all phases of its development and flight operations.
S-DPS-60940	A	The SPRHW CI shall be capable of simultaneously supporting the Independent Verification & Validation (IV&V) activities and the ECS development activities, both before and after flight operations begin.	EOSD0630#B	ECS shall be capable of simultaneously supporting the Independent Verification and Validation (IV&V) activities and ECS development activities, both before and after flight operations begin.
			SDPS0140#A	The SDPS shall support element, system, and subsystem test activities throughout the development phase.
			EOSD0630#A	ECS shall be capable of simultaneously supporting the Independent Verification and Validation (IV&V) activities and ECS development activities, both before and after flight operations begin.
			SDPS0140#B	The SDPS shall support element, system, and subsystem test activities throughout the development phase.
S-DPS-60950	A	The SPRHW CI shall be capable of supporting end-to-end test and verification activities of the EOS program including during the pre-launch, spacecraft verification, and instrument verification phases.	SDPS0140#B	The SDPS shall support element, system, and subsystem test activities throughout the development phase.
			SDPS0140#A	The SDPS shall support element, system, and subsystem test activities throughout the development phase.
			EOSD0800#A	Each ECS element shall be capable of supporting end-to-end test and verification activities of the EOS program including during the pre-launch, spacecraft verification, and instrument verification phases.
			EOSD0510#A	ECS shall be capable of being tested during all phases of its development and flight operations.
			EOSD0510#B	ECS shall be capable of being tested during all phases of its development and flight operations.

			EOSD0800#B	Each ECS element shall be capable of supporting end-to-end test and verification activities of the EOS program including during the pre-launch, spacecraft verification, and instrument verification phases.
S-DPS-60960	A	The SPRHW CI shall support end-to-end EOS system testing and fault isolation.	EOSD0760#B	Each ECS element shall support end-to-end EOS system testing and fault isolation.
			SDPS0140#A	The SDPS shall support element, system, and subsystem test activities throughout the development phase.
			EOSD0760#A	Each ECS element shall support end-to-end EOS system testing and fault isolation.
			SDPS0140#B	The SDPS shall support element, system, and subsystem test activities throughout the development phase.
S-DPS-60970	IR1	The SPRHW CI shall be capable of being monitored during testing.	EOSD0780#A	Each ECS element shall be capable of being monitored during testing.
			EOSD0780#Ir1	Each ECS element shall be capable of being monitored during testing.
			EOSD0780#B	Each ECS element shall be capable of being monitored during testing.
S-DPS-61040	A	The SPRHW CI computer platform shall provide a hard media device with a capacity of TBD GB for software and system maintenance and upgrade support.	EOSD0500#B	ECS shall perform the following major functions: a. EOS Mission Planning and Scheduling b. EOS Mission Operations c. Command and Control d. Communications and Networking e. Data Input f. Data Processing g. Data Storage h. Data Distribution i. Information Management j. End-to-End Fault Management k. System Management
S-DPS-61045	A	The SPRHW CI shall provide local consoles for maintenance and operation.	PGS-0380#A	The PGS shall monitor its internal operations and generate a status report periodically and on request.
			PGS-0380#B	The PGS shall monitor its internal operations and generate a status report periodically and on request.

S-DPS-61110	IR1	The operating system for each Unix platform in the SPRHW CI shall conform to the POSIX.2 standard.	PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			EOSD5020#Ir1	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

S-DPS-61120	IR1	The SPRHW CI POSIX.2 compliant platform shall have the following utilities installed at a minimum: perl, emacs, gzip, tar, imake, prof, gprof, nm.	PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-61125	B	The SPRHW CI POSIX.2 compliant platform shall have the following utilities installed at a minimum: perl, emacs, gzip, tar, imake, prof, gprof, nm, gtar, and gmake.	PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-61130	IR1	The SPRHW CI POSIX.2 compliant platform shall have the following POSIX.2 user Portability Utilities installed at a minimum: man, vi.	PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

S-DPS-61140	IR1	The SPRHW CI POSIX.2 compliant platform shall have the following POSIX.2 Software Development Utilities installed at a minimum: make.	PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-61150	IR1	The SPRHW CI POSIX.2 compliant platform shall have the following POSIX.2 C-Language Development Utilities installedat a minimum: lex, yacc.	PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

S-DPS-61160	IR1	The SPRHW CI POSIX.2 compliant platform shall have the following Unix shells installed at a minimum: C shell, Bourne shell, Korn shell.	PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-61170	IR1	The SPRHW CI POSIX.2 compliant platform shall have on-line documentation or printed documentation for each installed tool.	PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
S-DPS-61171	IR1	The SPRHW CI shall have provision for a dynamic analyzer to support the capability to check Science Software source code for memory leaks.	EOSD0780#B	Each ECS element shall be capable of being monitored during testing.
			EOSD0780#A	Each ECS element shall be capable of being monitored during testing.
			EOSD0780#Ir1	Each ECS element shall be capable of being monitored during testing.
S-DPS-61172	IR1	The SPRHW CI POSIX.2 compliant platform shall have installed one or more development environment supporting the following languages: a. C b. C++ c. FORTRAN 77 d. FORTRAN 90	PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
S-DPS-61173	IR1	Each development environment associated with the POSIX.2 compliant platform in the SPRHW CI shall have the capability to compile and link strictly conformant POSIX-compliant source code.	PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).

			PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
S-DPS-61174	IR1	Each development environment associated with the POSIX.2 compliant platform in the SPRHW CI shall have the capability to compile and link source code containing extensions specified in the Data Production S/W and SCF Standards and Guidelines.	PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			EOSD5020#Ir1	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
S-DPS-61175	IR1	Each development environment associated with the POSIX.2 compliant platform in the SPRHW CI shall have an interactive source level debugger for ECS supported languages.	PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
S-DPS-61177	IR1	The SPRHW CI POSIX.2 compliant platform supporting AI&T of CERES S/W shall have installed an ADA development environment.	EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.

			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			EOSD5020#Ir1	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
S-DPS-70010	IR1	The AITHW CI shall provide hardware resources to operations staff for the monitor and control of Science Software Integration and Test (AI&T) on SPRHW CI processing resources.	EOSD0500#B	ECS shall perform the following major functions: a. EOS Mission Planning and Scheduling b. EOS Mission Operations c. Command and Control d. Communications and Networking e. Data Input f. Data Processing g. Data Storage h. Data Distribution i. Information Management j. End-to-End Fault Management k. System Management
			EOSD0510#B	ECS shall be capable of being tested during all phases of its development and flight operations.
			EOSD0510#A	ECS shall be capable of being tested during all phases of its development and flight operations.

			EOSD0500#Ir1	ECS shall perform the following major functions: d. Communications and Networking e. Data Input f. Data Processing
S-DPS-70030	IR1	The AITHW CI shall provide hardware resources to operations staff for the monitor and control of Science Software configuration management.	EOSD0500#Ir1	ECS shall perform the following major functions: d. Communications and Networking e. Data Input f. Data Processing
			EOSD0500#A	ECS shall perform the following major functions: a. EOS Mission Planning and Scheduling b. EOS Mission Operations c. Command and Control d. Communications and Networking e. Data Input f. Data Processing g. Data Storage h. Data Distribution i. Information Management j. End-to-End Fault Management k. System Management
			EOSD0500#B	ECS shall perform the following major functions: a. EOS Mission Planning and Scheduling b. EOS Mission Operations c. Command and Control d. Communications and Networking e. Data Input f. Data Processing g. Data Storage h. Data Distribution i. Information Management j. End-to-End Fault Management k. System Management

Data Processing Subsystem L4 to RbR traceability

S-DPS-70050	A	The Algorithm Integration and Test HWCI design and implementation shall have the flexibility to accommodate Algorithm Integration and Test expansion up to a factor of 3 in its capacity with no changes in its design and up to a factor of 10 without major changes to its design.	PGS-1270#A	The PGS design and implementation shall have the flexibility to accommodate PGS expansion up to a factor of 3 in the processing capacity with no changes to the processing design, and up to a factor of 10 without major changes to the processing design. Such expansion in capacity or capability shall be transparent to existing algorithms or product specifications. This requirement shall apply to the system at all phases of contract performance, including the final system which accommodates the product growth specified in Appendix C, as well as the at-launch system.
			EOSD0545#A	ECS shall be able to accommodate growth (e.g., capacity) in all of its functions as well as the addition of new functions.
			PGS-1270#B	The PGS design and implementation shall have the flexibility to accommodate PGS expansion up to a factor of 3 in the processing capacity with no changes to the processing design, and up to a factor of 10 without major changes to the processing design. Such expansion in capacity or capability shall be transparent to existing algorithms or product specifications. This requirement shall apply to the system at all phases of contract performance, including the final system which accommodates the product growth specified in Appendix C, as well as the at-launch system.
S-DPS-70060	IR1	The AITHW CI shall have provision for Initialization, Recovery, and an orderly shutdown.	EOSD1703#Ir1	ECS shall provide maintenance and operations interfaces to the DAACs to support the functions of: b). Science Algorithm Integration
			EOSD1703#A	ECS shall provide maintenance and operations interfaces to the DAACs to support the functions of: a). System Management b). Science Algorithm Integration c). Product Generation d). Data Archive/Distribution e). User Support Services f). System Maintenance
			EOSD1703#B	ECS shall provide maintenance and operations interfaces to the DAACs to support the functions of: a). System Management b). Science Algorithm Integration c). Product Generation d). Data Archive/Distribution e). User Support Services f). System Maintenance

Data Processing Subsystem L4 to RbR traceability

S-DPS-70070	IR1	The AITHW CI shall have a status monitoring capability.	EOSD0780#B	Each ECS element shall be capable of being monitored during testing.
			SDPS0010#Ir1	The SDPS shall provide CSMS with operational, and data processing, data quality status.
			EOSD0780#Ir1	Each ECS element shall be capable of being monitored during testing.
			SDPS0010#A	The SDPS shall provide CSMS with operational, data processing, and data quality.
			EOSD0780#A	Each ECS element shall be capable of being monitored during testing.
			SDPS0010#B	The SDPS shall provide CSMS with operational, data processing, data quality and accounting status.
S-DPS-70080	A	AITHW CI functions shall have an operational availability of .96 as a minimum and Mean Down Time of < 4 hours during times of staffed operation.	EOSD3700#A	ECS functions shall have an operational availability of 0.96 at a minimum (.998 design goal) and an MDT of four (4) hours or less (1.5 hour design goal), unless otherwise specified. The above requirement covers equipment including: a. "Non-critical" equipment configured with the critical equipment supporting the functional capabilities in the requirements. b. Equipment providing other functionality not explicitly stated in the RMA requirements that follow.
			EOSD3700#B	ECS functions shall have an operational availability of 0.96 at a minimum (.998 design goal) and an MDT of four (4) hours or less (1.5 hour design goal), unless otherwise specified. The above requirement covers equipment including: a. "Non-critical" equipment configured with the critical equipment supporting the functional capabilities in the requirements. b. Equipment providing other functionality not explicitly stated in the RMA requirements that follow.
S-DPS-70085	A	The AITHW CI elements and components shall include the on-line (operational mode) and off-line (test mode) fault detection and isolation capabilities required to achieve the specified operational availability requirements.	EOSD4100#B	The ECS segments, elements, and components shall include the on-line (operational mode) and off-line (test mode) fault detection and isolation capabilities required to achieve the specified operational availability requirements.
			EOSD4100#A	The ECS segments, elements, and components shall include the on-line (operational mode) and off-line (test mode) fault detection and isolation capabilities required to achieve the specified operational availability requirements.

Data Processing Subsystem L4 to RbR traceability

S-DPS-70090	A	The maximum down time of the AITHW CI shall not exceed twice the required MDT in 99 percent of failure occurrences.	EOSD3630#A	The maximum down time shall not exceed twice the required MDT in 99 percent of failure occurrences.
			EOSD3630#B	The maximum down time shall not exceed twice the required MDT in 99 percent of failure occurrences.
S-DPS-70110	IR1	The operating system for each UNIX platform in the AITHW CI shall conform to the POSIX.2 standard.	PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			EOSD5020#Ir1	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
S-DPS-70120	IR1	The AITHW CI POSIX.2 compliant platform shall have the following utilities installed at a minimum: perl, emacs, gzip, tar, imake, prof, gprof, nm.	EOSD5020#Ir1	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

S-DPS-70130	IR1	The AITHW CI POSIX.2 compliant platform ishall have the following POSIX.2 User Portability Utilities installed at a minmum: man, vi.	PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			EOSD5020#Ir1	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
S-DPS-70140	IR1	The AITHW CI POSIX.2 compliant platform shall have the following POSIX.2 Software Development Utilities installed at a minimum: make.	EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.

			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#Ir1	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
S-DPS-70150	IR1	The AITHW CI POSIX.2 compliant platform shall have the following POSIX.2 C-Language Development Utilities installed at a minimum: lex, yacc.	PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.

			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#Ir1	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
S-DPS-70160	IR1	The AITHW CI POSIX.2 compliant platform shall have the following Unix shells installed at a minimum: C shell, Bourne shell, Korn shell.	EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#Ir1	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.

			PGS-0270#A	The PGS shall provide the capability to perform the following functions, at a minimum: a. Allocate tasks among processors b. Suspend execution of tasks c. Resume execution of a suspended task d. Cancel execution of tasks e. Request and verify the staging and/or destaging of data stored in the DADS
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
S-DPS-70180	IR1	The AITHW CI shall have provision for a dynamic analyzer to support the capability to check Science Software source code for memory leaks.	PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

			EOSD5020#Ir1	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
S-DPS-70183	IR1	The AITHW CI POSIX.2 compliant platform shall have on-line documentation or printed documentation for each installed tool.	PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.

S-DPS-70190	IR1	The AITHW CI POSIX.2 compliant platform shall have installed one or more development environment supporting the following languages: a. C b. C++ c. FORTRAN 77 d. FORTRAN 90	EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0920#Ir1	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#Ir1	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
S-DPS-70220	IR1	Each development environment associated with the POSIX.2 compliant platform in the AITHW CI shall have the capability to compile and link strictly conformant POSIX-compliant source code.	PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).

			EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			EOSD5020#Ir1	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
S-DPS-70230	IR1	Each development environment associated with the POSIX.2 compliant platform in the AITHW CI shall have the capability to compile and link source code containing extensions specified in the Data Production S/W and SCF Standards and Guidelines.	PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			EOSD5020#Ir1	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).

			EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
S-DPS-70240	IR1	Each development environment associated with the POSIX.2 compliant platform in the AITHW CI shall have an interactive source level debugger for ECS supported languages.	PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			EOSD5020#Ir1	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
S-DPS-70250	IR1	Each development environment associated with the POSIX.2 compliant platform in the AITHW CI shall have a screen capture utility.	EOSD5020#Ir1	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).

			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
S-DPS-70260	IR1	The AITHW CI shall include a set of profiling tools, with the capability to measure the average and maximum of the following: a. CPU time b. memory usage c. disk space usage of a process	PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
S-DPS-70270	IR1	The AITHW CI profiling tools shall be accessible via an API (application program interface).	PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
S-DPS-70280	IR1	The AITHW CI profiling tools shall be accessible via a GUI (graphical user interface).	PGS-0602#Ir1	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).

			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
S-DPS-70310	IR1	The AITHW CI platforms shall have provision for interfacing with one or more Local Area Networks (LANs).	SDPS0020#A	The SDPS shall receive EOS science, engineering, ancillary, and expedited data from the EDOS, and SDPF, and non-EOS ancillary data (as listed in Appendix C) from ADCs.
			SDPS0020#B	The SDPS shall receive EOS science, engineering, ancillary and expedited data from the EDOS, the SDPF, and the IPs, and non-EOS data, in situ data, associated algorithms, documentation, correlative data, and ancillary data (as listed in Appendix C) from ADCs, EPDSs, and ODCs.
			SDPS0020#Ir1	The SDPS shall receive EOS science, and engineering data from the SDPF, and non-EOS ancillary data (as listed in Appendix C) from ADCs.
S-DPS-70710	IR1	The electrical power requirements for AITHW CI equipment shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	SDPS0020#Ir1	The SDPS shall receive EOS science, and engineering data from the SDPF, and non-EOS ancillary data (as listed in Appendix C) from ADCs.
			SDPS0020#A	The SDPS shall receive EOS science, engineering, ancillary, and expedited data from the EDOS, and SDPF, and non-EOS ancillary data (as listed in Appendix C) from ADCs.
			SDPS0020#B	The SDPS shall receive EOS science, engineering, ancillary and expedited data from the EDOS, the SDPF, and the IPs, and non-EOS data, in situ data, associated algorithms, documentation, correlative data, and ancillary data (as listed in Appendix C) from ADCs, EPDSs, and ODCs.
S-DPS-70740	IR1	The air conditioning requirements for the AITHW CI equipment shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-70750	IR1	The grounding requirements for AITHW CI equipment shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.

S-DPS-70760	IR1	The fire alarm requirements for AITHW CI equipment shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-70770	A	The acoustical requirements for AITHW CI equipment shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
			SDPS0120#A	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-70780	IR1	The physical interface requirements between AITHW CI equipment and the facility shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-70790	IR1	The footprint size and the physical layout of AITHW CI equipment shall be in accordance with the ECS Facilities Plan (DID 302/DV2).	SDPS0120#B	The SDPS shall be capable of operating in a 24-hour a day, 7-day a week mode.
S-DPS-80010	A	The AQAHW CI shall provide for hardware resources to support DAAC operations staff performing routine QA of Product data.	PGS-1050#B	The PGS shall provide the capability to perform both automatic and manual QA of generated products.
			PGS-1080#B	The PGS shall have the capability to provide an inventory and review copy of generated products to the data product quality staff before the product is sent to the DADS for storage.
			PGS-1060#B	The PGS shall have the capability to perform automatic QA of generated products utilizing algorithms provided by the scientists.
			PGS-1090#B	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1110#B	The PGS shall have the capability to associate data quality with a generated product.
			PGS-1100#B	The PGS shall have the capability to accept product quality data input.
			PGS-1050#A	The PGS shall provide the capability to perform both automatic and manual QA of generated products.

			PGS-1080#A	The PGS shall have the capability to provide an inventory and review copy of generated products to the data product quality staff before the product is sent to the DADS for storage.
			PGS-1110#A	The PGS shall have the capability to associate data quality with a generated product.
			PGS-1100#A	The PGS shall have the capability to accept product quality data input.
			PGS-1090#A	The PGS shall have the capability to provide the data product quality staff with the algorithms, calibration coefficient tables, input data sets, or other information related to product processing for the purpose of reviewing and analyzing the quality of production.
			PGS-1060#A	The PGS shall have the capability to perform automatic QA of generated products utilizing algorithms provided by the scientists.
			EOSD0500#B	ECS shall perform the following major functions: a. EOS Mission Planning and Scheduling b. EOS Mission Operations c. Command and Control d. Communications and Networking e. Data Input f. Data Processing g. Data Storage h. Data Distribution i. Information Management j. End-to-End Fault Management k. System Management
S-DPS-80011	A	The AQAHW CI functions shall have an operational availability of .96 as a minimum and a mean down time of <4 hours during times of staffed operation.	EOSD3700#A	ECS functions shall have an operational availability of 0.96 at a minimum (.998 design goal) and an MDT of four (4) hours or less (1.5 hour design goal), unless otherwise specified. The above requirement covers equipment including: a. "Non-critical" equipment configured with the critical equipment supporting the functional capabilities in the requirements. b. Equipment providing other functionality not explicitly stated in the RMA requirements that follow.

			EOSD3700#B	ECS functions shall have an operational availability of 0.96 at a minimum (.998 design goal) and an MDT of four (4) hours or less (1.5 hour design goal), unless otherwise specified. The above requirement covers equipment including: a. "Non-critical" equipment configured with the critical equipment supporting the functional capabilities in the requirements. b. Equipment providing other functionality not explicitly stated in the RMA requirements that follow.
S-DPS-80020	A	The AQAHW CI elements and components shall include the on-line (operational mode) and off-line (test mode) fault detection and isolation capabilities required to achieve the specified operational availability requirements.	EOSD4100#A	The ECS segments, elements, and components shall include the on-line (operational mode) and off-line (test mode) fault detection and isolation capabilities required to achieve the specified operational availability requirements.
			EOSD4100#B	The ECS segments, elements, and components shall include the on-line (operational mode) and off-line (test mode) fault detection and isolation capabilities required to achieve the specified operational availability requirements.
S-DPS-80025	A	The maximum down time of the AQAHW CI shall not exceed twice the required MDT in 99 percent of failure occurrences.	EOSD3630#B	The maximum down time shall not exceed twice the required MDT in 99 percent of failure occurrences.
			EOSD3630#A	The maximum down time shall not exceed twice the required MDT in 99 percent of failure occurrences.
S-DPS-80110	A	The operating system for each UNIX platform in the AQAHW CI shall conform to the POSIX.2 standard.	EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.

S-DPS-80120	A	The AQAHW CI POSIX.2 compliant platform shall have the following utilities installed at a minimum: perl, emacs, gzip, tar, imake, prof, gprof, nm.	EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
S-DPS-80130	A	The AQAHW CI POSIX.2 compliant platform ishall have the following POSIX.2 User Portability Utilities installed at a minmum: man, vi.	EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
S-DPS-80140	A	The AQAHW CI POSIX.2 compliant platform shall have the following POSIX.2 Software Development Utilities installed at a minimum: make.	EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).

			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
S-DPS-80150	A	The AQAHW CI POSIX.2 compliant platform shall have the following Unix shells installed at a minimum: C shell, Bourne shell, Korn shell.	EOSD5020#B	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
			PGS-0602#A	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			PGS-0602#B	The PGS shall have the capability to accept POSIX-compliant science algorithms and compile algorithm source code written in a standard programming language (e.g., Fortran, C, Ada).
			EOSD5020#A	ECS software, hardware, and interfaces shall enable transparent portability across heterogeneous site architectures, i.e. performing the same function at different ECS sites that may have different hardware implementations.
S-DPS-80155	A	The AQAHW CI POSIX.2 compliant platform shall have on-line documentation or printed documentation for each installed tool.	PGS-0920#B	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
			PGS-0920#A	The PGS shall have the capability to validate, through testing, that SCF processing algorithms will execute properly in the operational environment. Validation shall include final compilation and linkage of the source code and testing to verify proper software execution in the operational environment based on indicated data and test results provided by the SCF and the investigator, but shall not include scientific validation of products.
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